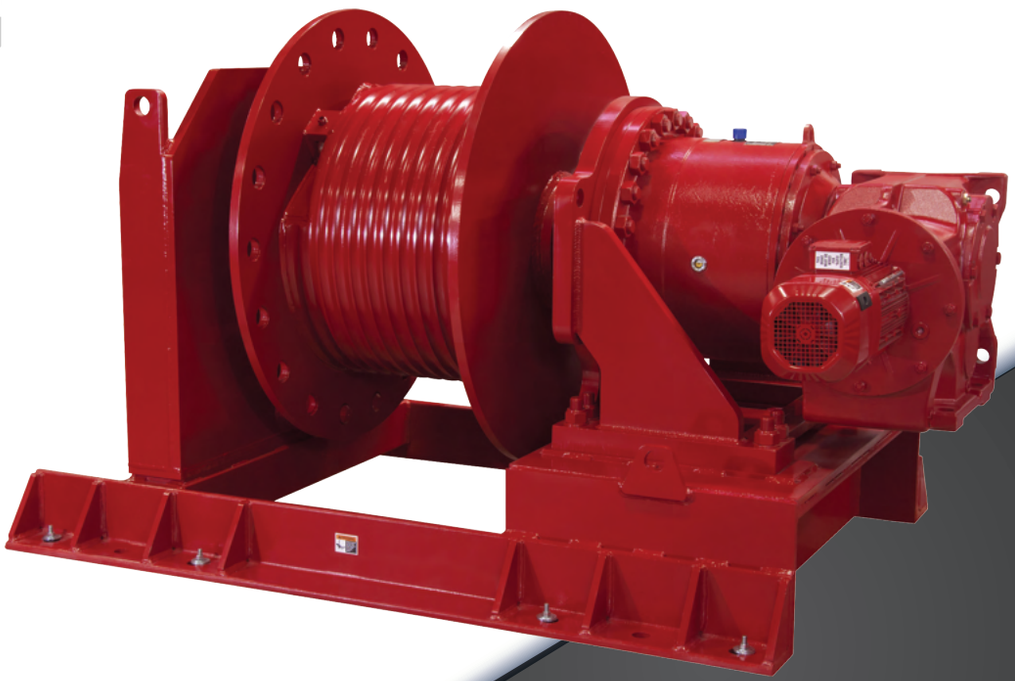
Thern®
Winches & Cranes

LEAVE THE **HEAVY LIFTING** TO US

PRODUCT CATALOG



Made in USA

thern.com
(507) 454-2996


Thern®
Winches & Cranes

ABOUT US

Maintaining a Steadfast Reputation of Manufacturing Excellence & Customer Satisfaction **SINCE 1948**

Founded in Winona, Minnesota by Royal G. Thern and his wife Lucille in 1948, Thern® Inc. began manufacturing a handful of winches and other tools, which formed the foundation for the cutting-edge lifting, pulling, positioning, and tensioning solutions we offer today.

Upholding a legacy built on innovation, we have leveraged over 70 years of continuous research, development, and testing to establish a worldwide reputation for toughness, versatility, and reliability. We stand by our tagline of **"Leave the Heavy Lifting to Us."** Thern winches and cranes are engineered to perform and last, *guaranteed.*

As a family-owned manufacturer with an experienced in-house engineering team, we are dedicated to providing you with the best solutions by carefully listening to all your needs to exceed your expectations. We take pride in offering top-quality products and services, timely responses, and accurate information for every project.

Some of the key industries that we serve include but are not limited to water/wastewater, theater, entertainment, construction, bulk material handling, mining, marine, defense/aerospace, energy, manufacturing, and OEMs. Backed by a diverse portfolio of reputable clients from NASA to the Times Square Ball, you can rely on Thern to move it all from big to small.

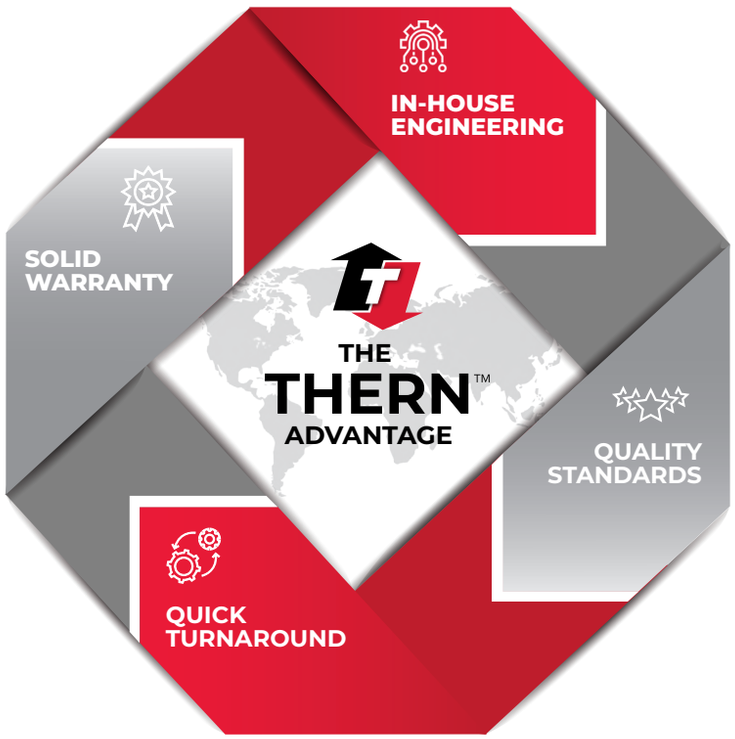
WHAT MAKES US DIFFERENT

In-House Engineering
Pooling decades of knowledge, our experienced in-house engineers consult, design, and make modifications as necessary to provide you with unsurpassed solutions for any application.

Quality Standards
As an ISO 9001:2015 registered company, we ensure that every product we manufacture in the USA meets our strict quality standards and is thoroughly tested for performance and durability.

Quick Turnaround
We take pride in offering exceptional lead times and turnaround that you can count on. For inventoried items, the lead time is two days with a turnaround time of three to five days.

Solid Warranty
You'll have peace of mind because we guarantee consistent service life for your Thern products with a two-year warranty to ensure your complete satisfaction. Please visit our website for more information.



SERVICES

THERN CUSTOMER SERVICE

Hours	7:00 am – 5:00 pm (CST)
Toll-Free	800.843.7648
Phone	507.454.2996
Email	info@thern.com
Web	www.thern.com

EXPECT MORE OF YOUR WINCH AND CRANE MANUFACTURER

Technical Assistance:
Not sure how to select the right winch for your application? Let an experienced member of our Technical Sales Department help you every step of the way.

System Solutions:
Sheaves, controls, rigging—we can help put together the best system to solve your lifting, pulling, or tensioning needs.

Engineered Solutions:
We embrace the opportunity to help you configure a unique custom-engineered solution to your most demanding applications.

Expedited Delivery:
When you have a demanding schedule, we can hand-hold your order from entry to shipment to ensure the best delivery schedule possible.

Wire Rope:
Winches require wire rope, and we can help you select the most appropriate style/size for your application. We can even spool it onto the drum for you, saving you valuable time during installation.

QUALITY ASSURANCE

Each product we manufacture must meet our strict quality standards, or it doesn't carry the Thern name. Our quality management system is certified to ISO 9001 standards. Inspection tools are maintained and calibrated regularly, and all new products are rigorously tested to ensure performance and durability. Thern has the ability to test products statically and dynamically with load capacities up to 55,000 lbs and line speeds of up to 200 fpm. Test and inspection certificates are additional services that are available upon request.

OUR MISSION

We like to say that our passion is helping our customers defy gravity. While that statement is a bit tongue-in-cheek, our employees love solving demanding challenges. We do this with a combination of top-quality products and services, along with timely responses and the best technical solutions in the industry.

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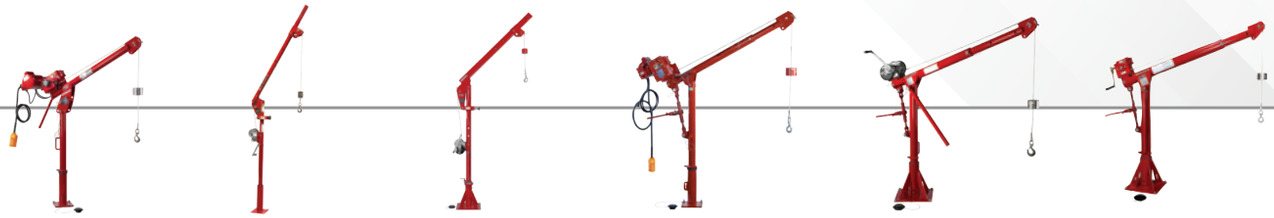
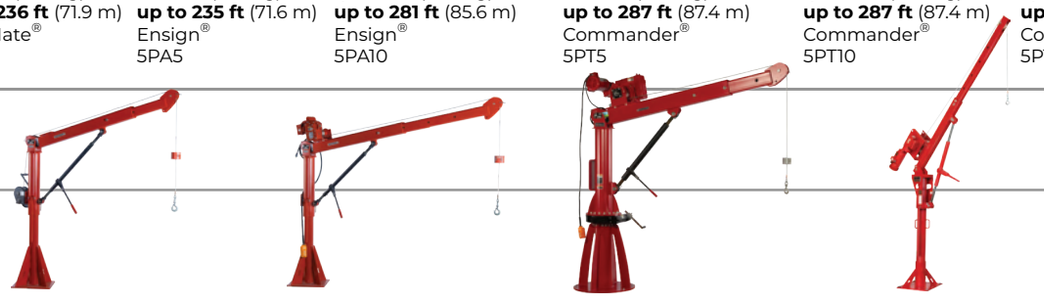
THERN® WINCHES AND CRANES
SPECS OVERVIEW

PORTABLE CRANES



Capacity Max Lift	Series	Model
0 to **850 lbs** (385 kg) **up to 236 ft** (71.9 m)	First Mate®	5PF5
500 lbs (226 kg) **up to 235 ft** (71.6 m)	Ensign®	5PA5
1,200 lbs (544 kg) **up to 281 ft** (85.6 m)	Ensign®	5PA10
650 lbs (300 kg) **up to 287 ft** (87.4 m)	Commander®	5PT5
1,200 lbs (544 kg) **up to 287 ft** (87.4 m)	Commander®	5PT10
2,000 lbs (907 kg) **up to 435 ft** (132.5 m)	Commander®	5PT20

STATIONARY CRANES



Capacity 0 to Max Lift	Series	Model
2,000 lbs (907 kg) **up to 278 ft** (84.7 m)	Captain®	5FT20
2,800 lbs (1,000 kg) **up to 278 ft** (84.7 m)	Captain®	5FT25
5,500 lbs (2,500 kg) **up to 174 ft** (53.0 m)	Captain®	5FT40
3,000 lbs (1,360 kg) **up to 224 ft** (68.2 m)	Admiral®	5PT30

HEAVY-DUTY ELECTRIC WINCHES

WS Series

Capacity Range	**600 lbs** (272 kg)	Up to					**26,000 lbs** (11,793 kg)
Line Speeds	**1 fpm** (.3 mpm)						**100 + fpm** (30 + mpm)
Travel Distance	1 ft (.3 m)						400 + ft (122 + m)
H.P.	1						30 +
4WS Models	1M	3M	6M	9M	16M		26M

HS Series

Capacity Range	**1,100 lbs** (498 kg)	Up to					**56,000 lbs** (25,401 kg)
Line Speeds	**1 fpm** (.3 mpm)						**100 + fpm** (30 + mpm)
Travel Distance	1 ft (.3 m)						1,500 + ft (457 + m)
H.P.	1						60
4HS Models	6M	11M	16M	26M	40M		56M

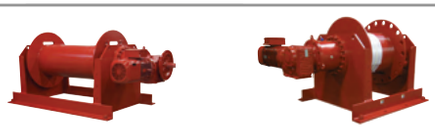
HWF Series

Capacity Range	**1,000 lbs** (453 kg)	Up to			**8,000 lbs** (3,628 kg)
Line Speeds	**1 fpm** (.3 mpm)				**70 + fpm** (21 + mpm)
Travel Distance	1 ft (.3 m)				2,000 + ft (610 + m)
H.P.	1				15 +
4HWF Models	1M	2M	4M	6M	8M

HPF Series

Capacity Range	**1,000 lbs** (453 kg)	Up to							**25,000 lbs** (11,339 kg)
Line Speeds	**1 fpm** (.3 pm)								**600 + fpm** (183 + mpm)
Travel Distance	1 ft (.3 m)								10,000 + ft (3,048 + m)
H.P.	1								75 +
4HPF Models	2M	3M	5M	7M	9M	15M	20M		25M

HBP Series



Capacity Range	**35,000 lbs** (15,875 kg)	Up to	**100,000 lbs** (45,359 kg)
Line Speeds	**1 fpm** (.3 mpm)		**100 + fpm** (30 + mpm)
Travel Distance	1 ft (.3 m)		12,000 + ft (3,658 + m)
H.P.	2		75 +
4HBP Models	35M		100M

AIR WINCHES

Big Red Series




Capacity **0** to	**3,600 lbs** (1,633 kg)	**7,200 lbs** (3,265 kg)	**7,200 lbs** (3,265 kg)	**18,000 lbs** (8,164 kg)	**23,600 lbs** (10,704 kg)	**37,000 lbs** (16,782 kg)
Line Speed	**94 fpm** (29 mpm)	**46 fpm** (14 mpm)	**114 fpm** (34 mpm)	**47 fpm** (14 mpm)	**29 fpm** (8.8 mpm)	**34 fpm** (10.4 mpm)
H.P.	7.1	7.1	18.3	17.8	14.4	27
Model	TA2H	TA2	TA2.5	TA5	TA7	TA10

Mini Series


Capacity **0** to	**1,400 lbs** (635 kg)	**2,700 lbs** (1,224 kg)
Line Speed	**52 fpm** (16 mpm)	**67 fpm** (20 mpm)
H.P.	1.35	3.5
Model	MTA 1000	MTA 2000

C Series



Capacity **0** to	**5,500 lbs** (2,494 kg)	**11,000 lbs** (4,989 kg)	**22,000 lbs** (9,979 kg)
Line Speed	**127 fpm** (39 mpm)	**55 fpm** (17 mpm)	**31 fpm** (9 mpm)
H.P.	TAC	TAC	TAC
Model	TA2.5C	TA5C	TA10C

PORTABLE ELECTRIC WINCHES





Max Capacity	**1,000 lbs** (453 kg)	**2,000 lbs** (907 kg)	**1,500 lbs** (680 kg)	**2,000 lbs** 907 kg)	**4,600 lbs** (2,086 kg)
Line Speed	**35–50 fpm** (11–15 mpm)	**19 fpm** (5.8 mpm)	**97 fpm** (29.6 mpm)	**22 fpm** (6.7 mpm)	**24 fpm** (7.3 mpm)
H.P.	----	1.3	3	1.5	3
Series	Liberty®	Atlas	Atlas	Dura Hoist	Atlas II
Model	3CP1S-AFS	4WP2T8	4WP2D8	4771	3WG4

HAND WINCHES

Spur Gear




Capacity **0** to	**1,000 lbs** (453 kg)	**2,000 lbs** (907 kg)	**4,000 lbs** (1,814 kg)	**10,000 lbs** (4,535 kg)
Gear Ratio	**3:1**	**15:1**	**20:1**	**25:1**
Approx. Weight	17 lbs (7.7 kg)	28 lbs (12.7 kg)	91 lbs (41.3 kg)	173 lbs (78.5 kg)
Model	M4022PB	M4312PB	M452B	M492B

Worm Gear



Capacity 0 to	**1,000 lbs** (453 kg)	**2,000 lbs** (907 kg)	**4,600 lbs** (2,086 kg)
Gear Ratio	**15:1**	**32:1**	**31:1**
Approx. Weight	21 lbs (9.5 kg)	41 lbs (18.6 kg)	123 lbs (55.8 kg)
Model	4622PB	4WM2	2W40

THERN®
HAND WINCHES

Dependable Manual Control of Heavy Loads Without Power

No power? No problem. If you need to lift, pull, or position loads up to 10,000 lbs without a power source, rely on Thern hand winches to keep your job moving forward. Built to last, these durable winches feature automatic brakes for positive load control and adjustable handles to increase your mechanical advantage for the ultimate user-friendly experience. Depend on this equipment to streamline work on the construction site, elevated platforms, and marine applications.

Worm Gear Series

Up to 4,600 lb / 2,085 kg Capacity

Here's your ideal solution to lift and lower large loads quietly, with less effort. Thern's Worm Gear hand winches feature an innovative design that allows for more precise positioning and extra load-holding power, enabling secure control. Machine-cut bronze gearing and a cast aluminum gearbox enhance durability and resist the elements. Automated drill-driveable options are available up to 400 rpm.

Spur Gear Series

Up to 10,000 lb / 4,535 kg Capacity

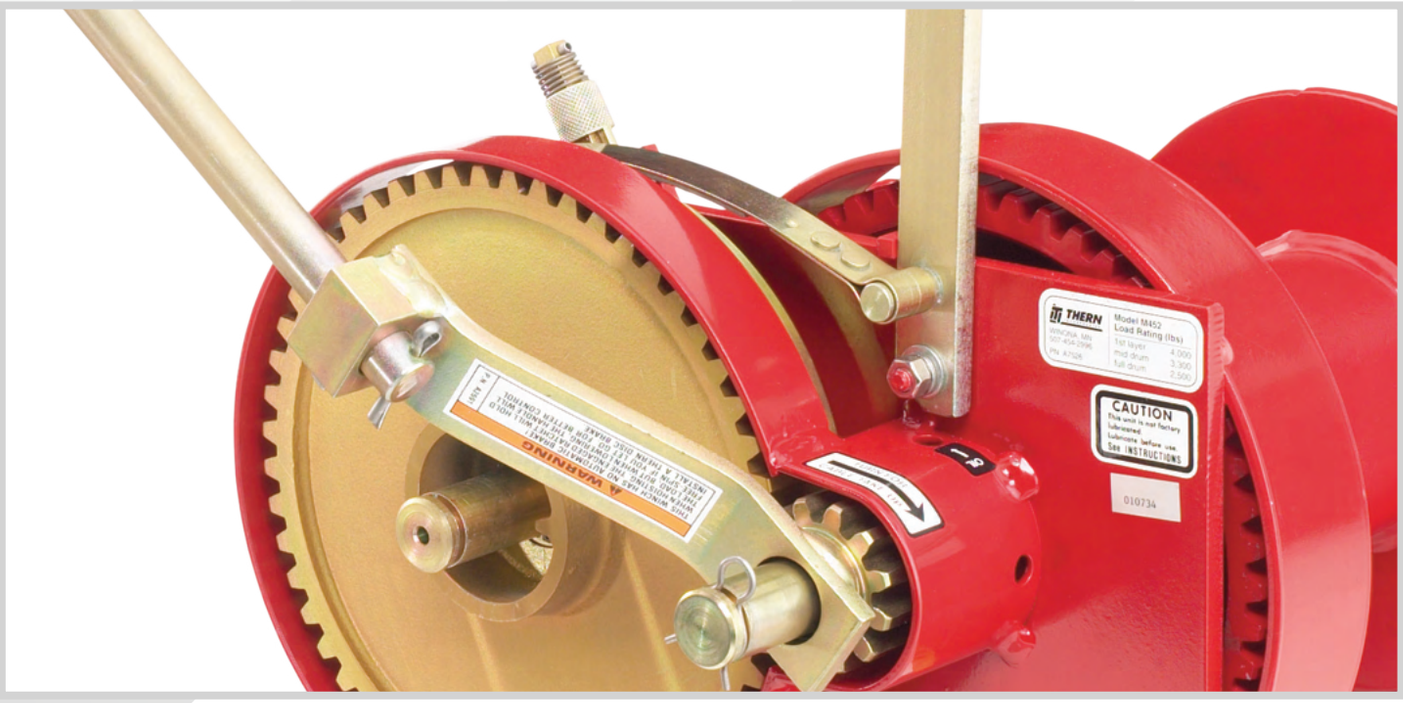
Get power and performance in the palm of your hands. When you need to lift, lower, and position large loads, including high-capacity holds and tensioning, rely on Thern's Spur Gear hand winches to deliver exceptional results. Heavy steel construction, optional stainless-steel finish, machine-cut steel gears, and radial ball bearings promote efficient operation.

UP TO 10,000 LB CAPACITY

FEATURES*

- Machine Cut Gears Increase Efficiency & Service Life
- Automatic Brake Models for Positive Load Control
- Corrosion-Resistant Finishes to Withstand Harsh Environments
- Quick-Disconnect Anchor for Streamlined Attachment or Removal of Wire Rope
- Bronze/Radial Ball Bearings Provide Smooth & Efficient Operation
- Gear Covers (Spur Gear Models) Protect Gears & Prevent Injuries
- Enclosed Oil Bath (Worm Gear Models) Minimizes Wear & Reduces Maintenance Costs
- Adjustable Handles Increase Mechanical Advantage
- Industry-Leading Warranty to Ensure Your Complete Satisfaction

*Features will vary depending on the model.



These products are not for lifting people or things over people.

Complete, downloadable details online
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Thern Winches & Cranes

SPUR GEAR

HAND WINCHES—UP TO 2,000 LBS

LIGHT-DUTY PERFORMANCE

with Robust Construction & Features

The Spur Gear Series of hand winches (up to 2,000 pounds) is a popular, versatile solution for lifting, lowering, and positioning loads in a variety of applications. Yet, it incorporates the same uncompromised quality and features for which Thern is known. Heavy steel construction, clear zinc-coated finish, machine-cut steel gears, bronze bushings, and radial ball bearings deliver rugged-duty service that will last. It's perfect for construction, maritime, and manufacturing environments.

Adjustable Handle

- Adjustable handle provides ability to increase mechanical advantage or speed as load weight varies

Solid Steel Machine-Cut Gears

- Precision-cut, zinc-coated steel gears resist corrosion, increase efficiency, and provide accurate and durable operation

Composite Gear Guards

- Glass-filled nylon, encased gear guard enhances safety and includes grease zerks for easy lubrication

Welded Steel Drum

- Robust drum design and large spool diameter minimize drum wear and extend wire rope life

Product Shown: M4312PB

Quick-Disconnect Anchor

- Swaged ball fitting holds load and allows additional flexibility for quickly attaching or removing wire rope

Automatic Weston-Style Brake

- Spring-engaged, ratchet-pawl design offers additional reliability and positive load control for lifting and lowering
- Enclosed (pawl and ratchet) envelope keeps brake clean, dry, and protected for reliable service and haptic feedback
- Durable friction discs reduce wear and increase service life

Thern® Winches & Cranes

PERFORMANCE

IMPERIAL

Series	Load Rating	Finish	Drum	Brake	Drum Capacity	Force to Lift 1,000 lbs
M4022PB	1,000 lbs	Clear Zinc Plating	Narrow	Yes	130 ft	41 lbs
M4032PB	1,000 lbs	Clear Zinc Plating	Wide	Yes	250 ft	41 lbs
M4042PBSS	1,000 lbs	Stainless	Wide	Yes	240 ft	46 lbs
M4312PB	2,000 lbs	Clear Zinc Plating	Narrow	Yes	110 ft	17 lbs
M4312PBSS	2,000 lbs	Stainless	Narrow	Yes	110 ft	17 lbs
M4412PB	2,000 lbs	Clear Zinc Plating	Wide	Yes	210 ft	17 lbs

Available Non-Brake Units

- Non-brake unit allows additional flexibility in horizontal pulling applications only

METRIC

Series	Load Rating	Finish	Drum	Brake	Drum Capacity	Force to Lift 453 kg
M4022PB	450 kg	Clear Zinc Plating	Narrow	Yes	39 m	19 kg
M4032PB	450 kg	Clear Zinc Plating	Wide	Yes	76 m	19 kg
M4042PBSS	450 kg	Stainless	Wide	Yes	73 m	21 kg
M4312PB	905 kg	Clear Zinc Plating	Narrow	Yes	33 m	8 kg
M4312PBSS	905 kg	Stainless	Narrow	Yes	33 m	8 kg
M4412PB	905 kg	Clear Zinc Plating	Wide	Yes	64 m	8 kg

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

SPUR GEAR

HAND WINCHES—UP TO 10,000 LBS

ROBUST CONSTRUCTION

for Dependable Heavy-Duty Service

The Spur Gear Series of hand winches (up to 10,000 pounds) is designed to lift, lower, and position heavy loads, dependably. It is also a perfect solution for high-capacity stabilization and tensioning needs. The rugged design features heavy steel construction, machine-cut steel gears, bronze bushings, and radial ball bearings. You can count on long, rugged service life for many applications, like construction and aerospace.

Spring-Loaded Ratchets & Locking Mechanism

- Ratchets automatically engage to hold loads securely when winch is not being operated
- Frame-based, gear-locking mechanism enhances load control

Adjustable Handle

- Adjustable handle provides ability to increase mechanical advantage or speed accordingly as load weight varies

Steel Gear Guards

- Steel-encased gear guard enhances safety

Available Non-Brake Units

- Non-brake unit allows additional flexibility in horizontal pulling applications only
- Two gear ratios increase efficiency, depending on load

Solid Steel Machine-Cut Gears

- Precision-cut, zinc gears resist corrosion, increase efficiency, and provide precise operation for outdoor use

Product Shown: M452

Thern® Winches & Cranes

Automatic Weston-Style Brake*

- Spring-engaged, ratchet-pawl design offers additional reliability and positive load control for lifting and lowering
- Enclosed (pawl and ratchet) envelope keeps brake clean, dry, and protected for reliable service and haptic feedback
- Durable friction discs reduce wear and increase service life

**Available without brake for pulling applications only*

Welded Steel Drum

- Robust drum design and large spool diameter minimizes drum wear and extends wire rope life

PERFORMANCE

IMPERIAL

Series	Load Rating	Brake	Drum Capacity	Low-Speed Force to Lift 1,000 lbs at Base Layer
M452	4,000 lbs	No	300 ft	10 lbs
M452B	4,000 lbs	Yes	300 ft	10 lbs
M492	10,000 lbs	No	540 ft	8 lbs
M492B	10,000 lbs	Yes	540 ft	8 lbs

METRIC

Series	Load Rating	Brake	Drum Capacity	Low-Speed Force to Lift 1,000 lbs at Base Layer
M452	1,810 kg	No	91 m	5 kg
M452B	1,810 kg	Yes	91 m	5 kg
M492	4,535 kg	No	164 m	4 kg
M492B	4,535 kg	Yes	164 m	4 kg

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Refer to technical pages for detailed performance information.

WORM GEAR

HAND WINCHES

MEASURED, STEADY PRECISION

with Less Force

The Worm Gear Series of hand winches (up to 4,600 lbs) is designed to lift and lower heavy loads quietly, with less effort. The worm-gear design allows for more precise positioning and extra load-holding power for secure control. Machine-cut bronze gearing and a cast aluminum gearbox enhance durability and resist the elements. Multiple configurations make it ideal for maritime, rail yards, construction, and manufacturing.

Adjustable Handle

- Adjustable handle provides ability to increase mechanical advantage or speed accordingly as load weight varies

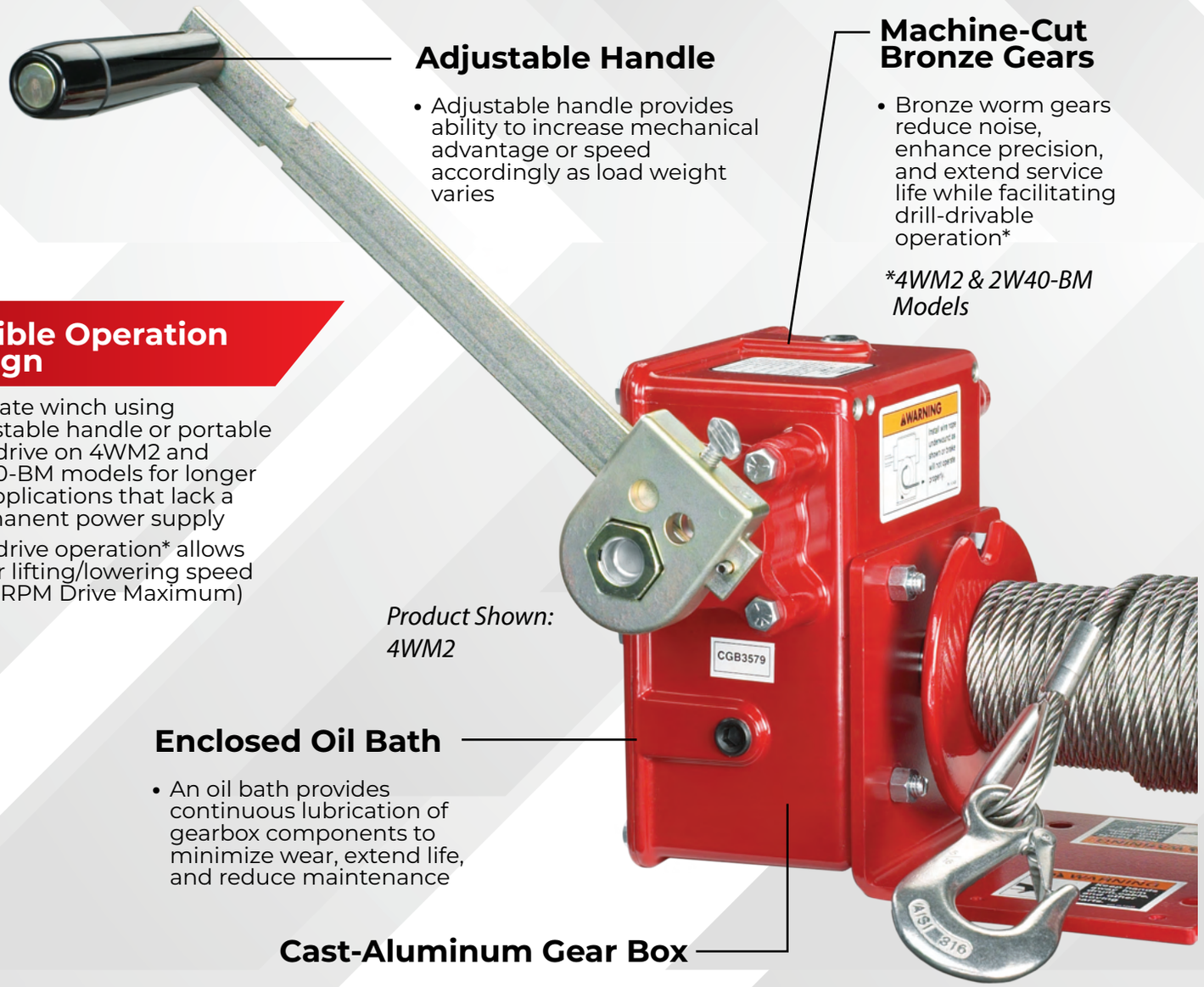
Machine-Cut Bronze Gears

- Bronze worm gears reduce noise, enhance precision, and extend service life while facilitating drill-drivable operation*

**4WM2 & 2W40-BM Models*

Flexible Operation Design

- Operate winch using adjustable handle or portable drill-drive on 4WM2 and 2W40-BM models for longer lift applications that lack a permanent power supply
- Drill drive operation* allows faster lifting/lowering speed (400 RPM Drive Maximum)



Product Shown: 4WM2

Enclosed Oil Bath

- An oil bath provides continuous lubrication of gearbox components to minimize wear, extend life, and reduce maintenance

Cast-Aluminum Gear Box

- Lightweight, corrosion-resistant design enhances portability and increases service life

Thern Winches & Cranes

PERFORMANCE

Automatic Brake

- Adjustable brake provides positive load control for lifting/lowering
- Oil bath provides continuous lubrication to reduce heat, minimize wear, and extend service life

Series	IMPERIAL			
	Load Rating	Brake	Drum Capacity	Force to Lift 1,000 lbs
4622PB	1,000 lbs	Yes	140 ft	26 lbs
4WM2	2,000 lbs	Yes	77 ft	14 lbs
2W40-BM	4,000 lbs	Yes	200 ft	11 lbs

Load-Locking Mechanism

- Frame-based, gear-locking mechanism enhances load control

Series	IMPERIAL			
	Load Rating	Brake	Drum Capacity	Force to Lift 1,000 lbs
4622PB	450 kg	Yes	42 m	12 kg
4WM2	905 kg	Yes	23 m	7 kg
2W40-BM	2,085 kg	Yes	60 m	5 kg

Large-Diameter Drum

- Large diameter drum extends wire rope life and increases travel distance

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Refer to technical pages for detailed performance information.

THERN® PORTABLE ELECTRIC WINCHES

Delivering Unmatched Power in a Lightweight Package

Move up to 4,600 lbs with confidence using a portable electric winch from Thern. Constructed of durable cast aluminum, these lightweight winches are designed for maximum portability to deliver superior strength and performance where and when you need it. They're ideal for construction sites, in the mines, at wastewater treatment plants, and even aerospace facilities. Special coating finishes are available to withstand even the harshest environments.

Liberty® Series

Up to 2,000 lb / 900 kg Capacity

Built to last, this capstan winch maintains quiet operation to enhance team communication for increased productivity. The enclosed motor housing, powder-coat finish, and corrosion-resistant components ensure dependable performance for years to come.

Dura-Hoist Series

Up to 2,000 lb / 907 kg Capacity

Engineered with a compact, vertical design, this helical/worm gear winch offers the perfect solution when you need robust power in tight spaces. Featuring solid construction, internal lubrication, and pendant control, the only thing you won't need is worry.

Atlas Series

Up to 2,000 lb / 907 kg Capacity

This popular winch series combines portability, strength, and precision in a compact envelope. Ergonomic handles and pendant control make positioning and operation ultra-convenient. Plus, a built-in pressure plate secures the wire rope tightly on the drum when the winch is not in use.

Atlas II Series

Up to 4,600 lb / 2,086 kg Capacity

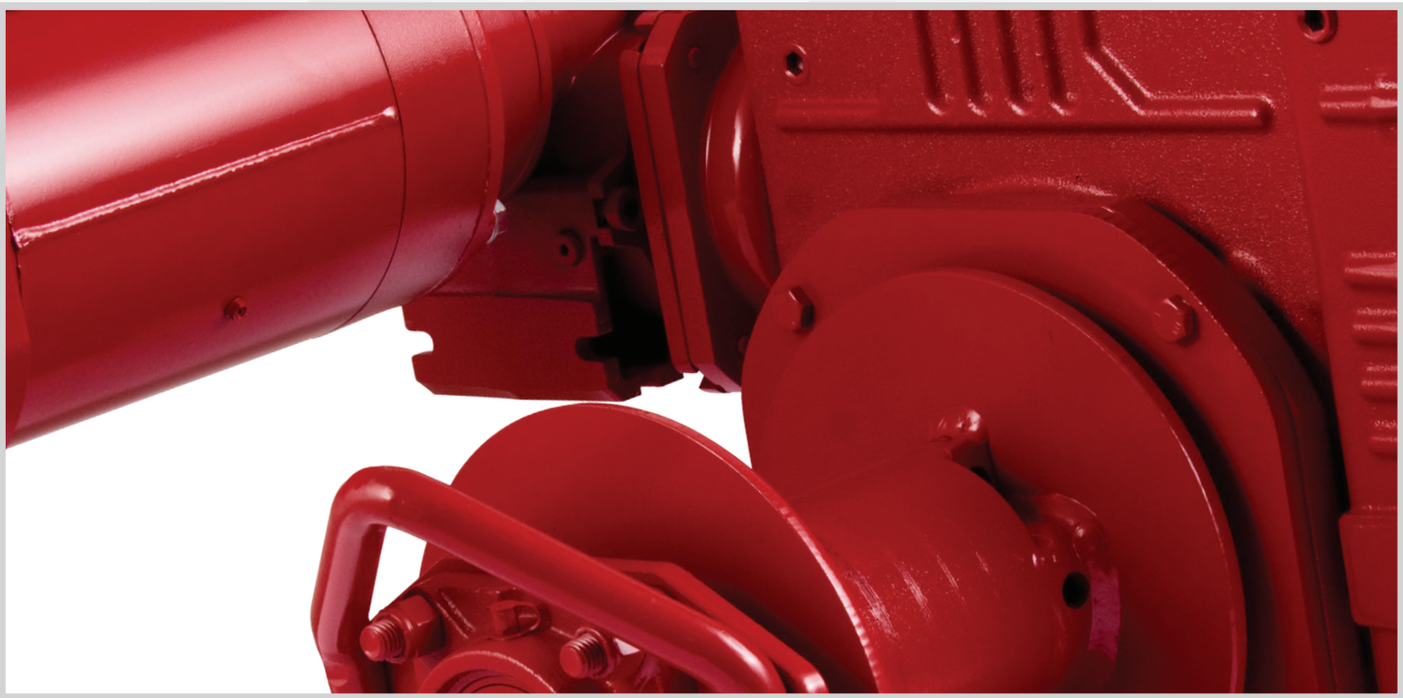
Get the best of both worlds. When you need extra power but can't lose portability, the 3WG4 is your go-to winch. With double the load capacity of the 4WP2, you get the power you need with all the convenience of a smaller winch.

UP TO 4,600 LB CAPACITY

FEATURES*

- Premium, Industrial-Duty Electric Motors
- Worm Gearing for Precise Load Control
- Enclosed Oil Bath Dissipates Heat & Provides Continuous Lubrication
- Load-Holding Brakes Facilitate Safe Operation
- Cast-Aluminum Construction for Lightweight Portability
- Mount on Floor, Wall, or Ceiling for Flexible Installation and Use
- Weathertight NEMA Controls Available
- Ergonomic Lifting Handles for Easy Transport
- Clutch Models Available for Quick Wire Rope Payout
- Industry-Leading Warranty to Ensure Your Complete Satisfaction

*Features will vary depending on the model.



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Thern Winches & Cranes

LIBERTY® SERIES

PORTABLE CAPSTAN WINCH W/ INTEGRAL SWIVEL BASE

Quiet Performance at Any Angle

The Thern Liberty® Series capstan winch delivers portable strength and performance. The swivel base helps you deliver it, securely, at almost any angle for lifting, stringing, and pulling—especially with the optional hitch mount. Position your truck once, rotate the winch (15° increments) to align the load, and lock it down. Then, enjoy quiet operation for enhanced team communication and productivity. It's perfect for energy sector tasks in remote locations, including pole setting, stringing lines, maintaining wind turbines, and erecting cell towers.

Engineered Drum Design

- Keeps load line from moving during operation, enhancing productivity
- Nickel-plated steel construction for optimum performance and durability

Integral Rope Keep

- Spring-loaded rope keep helps prevent accidental removal of hand line from drum
- Corrosion-resistant components improve durability
- Rope keep bar serves as a carrying handle

Premium Motor with Handle

- Premium motor offers quiet operation (80 dBA)* enhancing clear communication between operators
- Totally enclosed housing with durable powder-coat finish resists contamination for increased reliability
- Maintenance-free, permanently lubricated, planetary gearbox for smooth operation and long life
- UL-Recognized motor

Product Shown:
3CP1S-AFS

Foot Switch Control

- Foot switch-controlled operation delivers productivity and safety
- IP65, NEMA 4-rated sealed foot switch allows outdoor use
- Painted, cast-iron construction and anti-skid feet promote durability and stability for outdoor applications
- 10-foot cord and twist-lock plug design avoids untimely power disruption, increasing productivity

Durable Swivel Frame with Integral Lock Option Available

- Adjustable rotation in 15° increments to align loads and lock securely with swivel stop
- Lightweight, engineered design and steel construction provides portability
- Powder-coated steel finish resists wear and promotes durability
- Half-inch, Grade 5 mounting hardware enhances security
- Optional heavy-duty fixed mount frame

Integral Rope Lock

- Rope lock prevents unintentional lowering of load
- Nickel-plated and anodized components ensure durability and smooth handling of load.
- Adjustable rope lock accommodates various line exit angles and operator heights

Thern® Winches & Cranes

PERFORMANCE

IMPERIAL

Series	Maximum Capacity	Rope Diameter Range**	Maximum Line Speed Range***	Rated Current Draw	Input Voltage	Ship Weight	Ambient Operating Temperature Range	Duty Cycle	Mount Type
3CP1M-AFS	1,000 lbs	½–¾ in	35–50 fpm	15 amp	115V/1 Phase /50-60Hz	64 lbs	-4 °F– +105 °F	20 mins full load	Fixed
3CP1S-AFS	1,000 lbs	½–¾ in	35–50 fpm	15 amp	115V/1 Phase /50-60Hz	76 lbs	-4 °F– +105 °F	20 mins full load	Swivel
3CP2S-AFS	2,000 lbs	½–¾ in	13–20 fpm	15 amp	115V/1 Phase /50-60Hz	84 lbs	-4 °F– +105 °F	20 mins full load	Swivel

METRIC

Series	Maximum Capacity	Rope Diameter Range**	Maximum Line Speed Range***	Rated Current Draw	Input Voltage	Ship Weight	Ambient Operating Temperature Range	Duty Cycle	Mount Type
3CP1M-AFS	450 kg	13–19 mm	11–15 mpm	15 amp	115V/1 Phase 50-60Hz	29 kg	-20°C– +40°C	20 mins full load	Fixed
3CP1S-AFS	450 kg	13–19 mm	11–15 mpm	15 amp	115V/1 Phase 50-60Hz	34 kg	-20°C– +40°C	20 mins full load	Swivel
3CP2S-AFS	900 kg	13–19 mm	4–6 mpm	15 amp	115V/1 Phase 50-60Hz	38 kg	-20°C– +40°C	20 mins full load	Swivel

** Thern's 3CP1M-AFS winch has a maximum noise level of 80 dBA, averaging 10 dBA less than the competition, when measured at a distance of approximately three feet under similar conditions*

*** Synthetic rope only. Available for purchase through Thern.*

**** Load dependent.*

Motor Safety Features

- Over-temperature light indicates high temperatures caused by overcurrent or environmental factors
- Integrated breaker automatically provides overload protection to extend life of equipment

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

LIBERTY® SERIES
PORTABLE CAPSTAN WINCHES

Product Shown:
3CP1S-HM

Libery Capstan Hitch Mounts - sold separately

Model 3CP1S-HM

- Compatable with 3CP1S-AFS 1,000 pound capacity Liberty Capstan winch only• Rotation handle design does not interfere with boom angle adjustment for easier operation
- Heavy-duty (ASTM-grade steel) construction
- For use on vehicles with 2-inch hitch receiver
- Hitch mount includes standard receiver clevis and cotter pins
- Red powder-coat finish
- Weighs approximately 26 pounds for easy handling

Model 3CP2S-HM

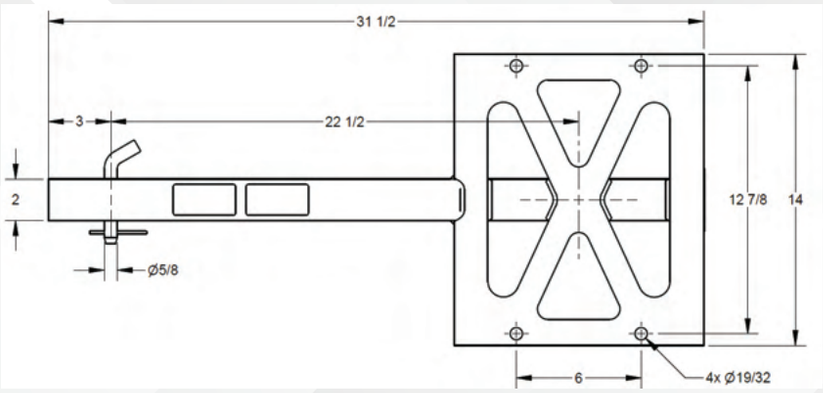
- Compatable with both 3CP1S-AFS 1,000 pound capacity and 3CP2S-AFS 2,000 pound capacity Liberty• Heavy-duty (ASTM-grade steel) construction
- Capstan winches Heavy-duty (ASTM-grade steel) construction
- For use on vehicles with 2 1/2-inch hitch receiver
- Hitch includes standard receiver clevis and cotter pins
- Red powder-coat finish
- Weighs approximately 45 pounds for easy handling

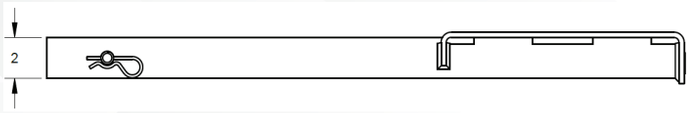
Synthetic Rope Assemblies - sold separately

Samson Synthetic rope assemblies are for use with Thern Liberty Capstan series winches only. For additional rope assemblies, contact the factory.

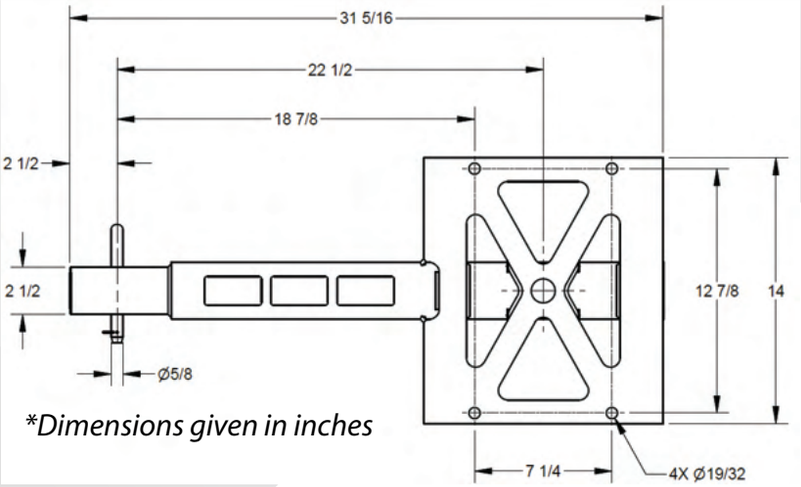
Rope Diameter (in)	(mm)	Rope Lengths Available
1/2	12.7	300 ft. (91.4 m.), 600 ft. (182.9 m.), 1200 ft. (365.8 m.)
5/8	15.9	300 ft. (91.4 m.), 600 ft. (182.9 m.), 1200 ft. (365.8 m.)
3/4	19.1	300 ft. (91.4 m.), 600 ft. (182.9 m.), 1200 ft. (365.8 m.)

Model 3CP1S-HM*

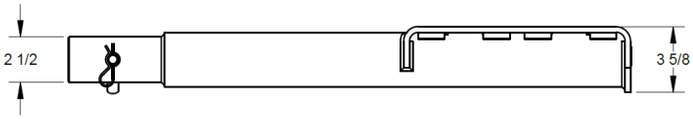




Model 3CP2S-HM*



*Dimensions given in inches



NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

DURA-HOIST SERIES

PORTABLE ELECTRIC WINCHES

QUIET PORTABILITY

with Quick Cable Disconnect

The 477 Series features a compact, vertical design when robust power is needed in tight spaces. Lift/pull up to 2,000 pounds in any direction or orientation: floor, ceiling, or wall. Machine-cut helical and worm gears offer quiet and precise power transfers and continuous lubrication ensures long life. Ideal for wastewater, construction, and manufacturing applications.

Portable Design

- Optional integrated pressure plate prevents unspooling during transport
- Mounts on wall, ceiling, or floor for maximum flexibility
- Lightweight cast aluminum drum and gearbox

Premium Motor & Configurations

- Brushless-design, totally enclosed AC induction motor provides superior life
- Quiet operation in both directions
- 115-volt single phase standard, with other voltages available (single-and three-phase configurations)

Product Shown:
4777

Durable Winch Frame & Component Construction

- Cast aluminum drum, frame, and gearbox (with enamel or optional epoxy coating) resist corrosion for extreme conditions and applications

Internal Mechanical Load Brake

- Internal mechanical brake helps control loads and facilitates controlled operation
- Wet-brake design increases durability by dissipating heat and reducing wear

Thern® Winches & Cranes

Premium Gearbox Design

- Helical and worm gears provide increased load control and quiet operation
- Fully enclosed oil bath reducer dissipates heat and provides continuous lubrication for long service life

Enhanced Load Handling

- Quickly disconnect loads when needed to speed labor/time

Ready-to-Work Controls

- Standard push-button pendant and power cord standard on 4771 and 4777
- NEMA 4 rating for outdoor use

PERFORMANCE

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Drum (Wide or Narrow)
4771	2,000 lbs 1st layer	115 / 1 / 60 VAC	13–22 fpm	90–120 ft	Wide
4771PN	1,500 lbs 1st layer	Pneumatic	13–22 fpm	90–120 ft	Wide
4771HY	2,000 lbs 1st layer	Hydraulic	13–22 fpm	90–120 ft	Wide
4771DC	2,000 lbs 1st layer	12 VDC	13–22 fpm	90–120 ft	Wide
4777	2,000 lbs 1st layer	115 / 1 / 60 VAC	13–22 fpm	60–89 ft	Narrow

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Drum (Wide or Narrow)
4771	907 kg 1st layer	115 / 1 / 60 VAC	3–6 mpm	27–36 m	Wide
4771PN	680 kg 1st layer	Pneumatic	3–6 mpm	27–36 m	Wide
4771HY	907 kg 1st layer	Hydraulic	3–6 mpm	27–36 m	Wide
4771DC	907 kg 1st layer	12 VDC	3–6 mpm	27–36 m	Wide
4777	907 kg 1st layer	115 / 1 / 60 VAC	3–6 mpm	18–27 m	Narrow

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

ATLAS SERIES

PORTABLE ELECTRIC WINCHES

SPEED & PORTABILITY in a Compact Envelope

The 4WP2 Series electric winches combine portability with strength and precision—all in a compact envelope. The portable design makes it ideal for multiple industries and applications including manufacturing, construction, steel industry, wastewater treatment, rail operations, and more. Lift or pull in any direction and in any orientation: floor, ceiling, or wall.

Product Shown: 4WP2T8

Premium Motor & Configurations

- Brushless, totally enclosed AC induction motor provides superior life
- Quiet operation in both directions
- 115-volt single phase standard, with other voltages available (single, three-phase, and DC configurations)

Ready-to-Work Controls

- Standard push-button pendant and power cord standard on 4WP2 and 4WP2T8 for ready operation
- NEMA 4 rating for outdoor use

Durable Winch Frame & Component Construction

- Cast aluminum drum and gearbox (with enamel or optional epoxy coating) resists corrosion for extreme conditions and applications
- Coated steel frame resists elements and wear

Enhanced Load Handling

- Large-capacity drum for long travel distances
- Quick-disconnect anchor for ¼" wire rope reduces labor/time

Thern®
Winches & Cranes

PERFORMANCE

Premium Gearbox Design

- Gear box reducer with worm gear design for increased load control and quiet operation
- Fully enclosed oil bath dissipates heat and provides continuous lubrication for long service life

Internal Mechanical Load Brake

- Internal mechanical brake helps control loads and facilitates safe operation
- Oil-bath brake design increases durability by dissipating heat and reducing wear

Portable Design

- Ergonomic lifting handles enhance portability
- Integrated pressure plate prevents unspooling during transport
- Mounts on wall, ceiling, or floor for maximum flexibility
- Lightweight cast aluminum drum and gearbox

Series	IMPERIAL				
	Load Rating	Clutch	Line Speed	Drum Capacity	Drum (Wide or Narrow)
4WP2	2,000 lbs 1st layer	No	8–13 fpm	52–77 ft	Narrow
4WP2D8	1,500 lbs 1st layer	No	40–97 fpm	190–280 ft	Wide
4WP2DC*	1,500 lbs 1st layer	Yes	40–97 fpm	130–190 ft	Narrow
4WP2T8	2,000 lbs 1st layer	No	8–19 fpm	190–280 ft	Wide
4WP2TC*	2,000 lbs 1st layer	Yes	8–19 fpm	130–190 ft	Narrow

Series	IMPERIAL				
	Load Rating	Clutch	Line Speed	Drum Capacity	Drum (Wide or Narrow)
4WP2	907 kg 1st layer	No	2–3 mpm	15–23 m	Narrow
4WP2D8	680 kg 1st layer	No	12–29 mpm	57–85 m	Wide
4WP2DC*	680 kg 1st layer	Yes	12–29 mpm	39–57 m	Narrow
4WP2T8	907 kg 1st layer	No	2–5 mpm	57–85 m	Wide
4WP2TC*	907 kg 1st layer	Yes	2–5 mpm	39–57 m	Narrow

** For horizontal pulling applications only.*

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

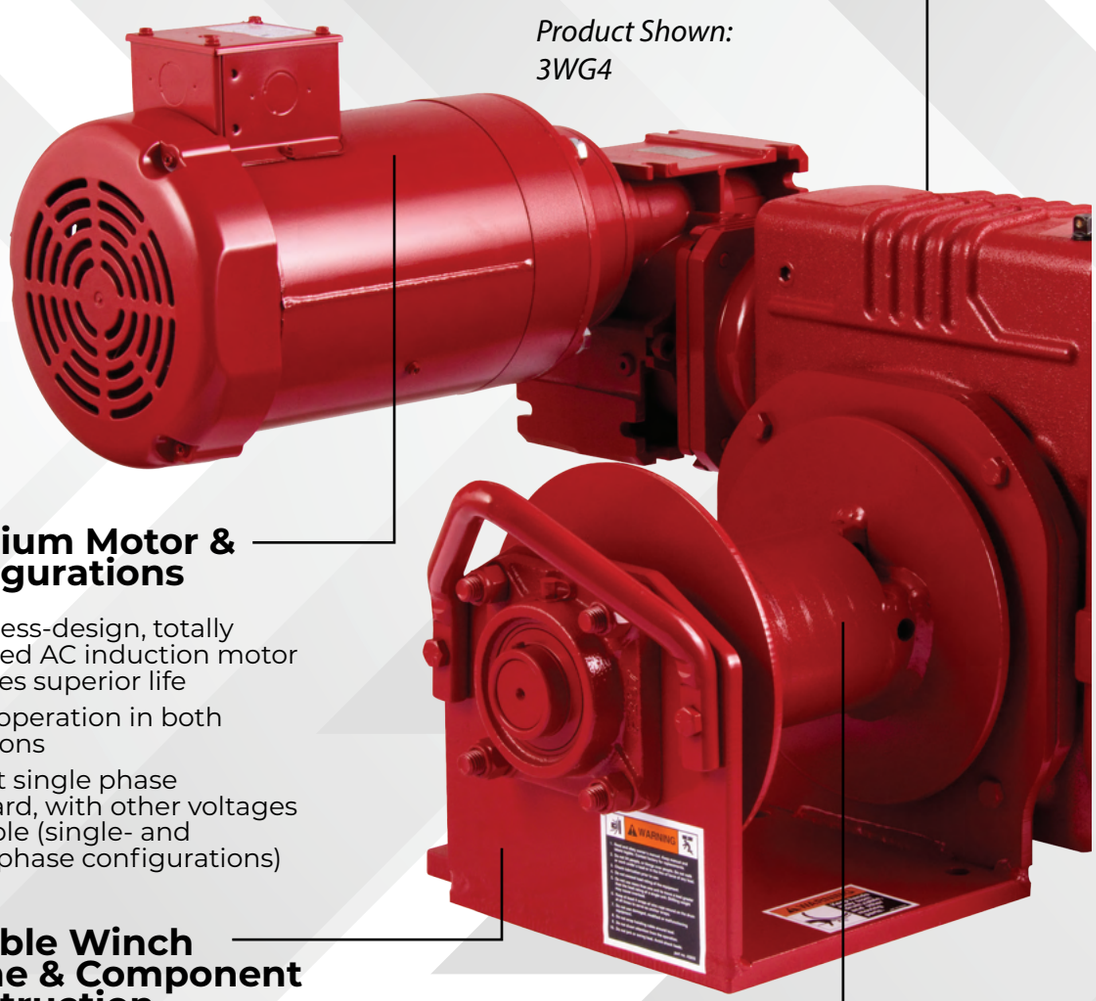
ATLAS II SERIES

PORTABLE ELECTRIC WINCHES

High-Power Capacity
with Portable Convenience

The 3WG4 Series offers up to 4,600 pounds of secure lift and pull capacity, while retaining the versatility of a portable winch—just right for a variety of demanding applications. Lift or pull in any direction or orientation: floor, ceiling, or wall. Ideal for communication tower assembly, rail yards, steel operations, mining, heavy construction, and manufacturing applications.

Product Shown:
3WG4



Easy-to-Use Controls

- 115-volt pendant control and power cord included (3WG4, 3WG4-B, 3WG4-M)
- NEMA 4 rating for outdoor use

Premium Motor & Configurations

- Brushless-design, totally enclosed AC induction motor provides superior life
- Quiet operation in both directions
- 115-volt single phase standard, with other voltages available (single- and three-phase configurations)

Durable Winch Frame & Component Construction

- Cast aluminum gearbox (with enamel or optional epoxy coating) resists corrosion for extreme conditions and applications
- Painted steel frame resists elements and wear

Enhanced Load Handling

- Large-capacity drum for long travel distances

Thern Winches & Cranes

Premium Gearbox Design

- Fully enclosed oil bath for reducer dissipates heat and provides continuous lubrication for long service life
- Double-worm gearing

Internal Mechanical Load Brake

- M-Models feature a spring-applied, electrically released motor disk brake
- B-Models feature an internal, mechanical brake to help control loads and facilitate safe operation
- Wet brake design on B-Models increases durability by dissipating heat and reducing wear

PERFORMANCE

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity
3WG4-B	4,000 lbs 1st layer	115 / 1 / 60	9–16 fpm	140–200 ft
3WG4-B	4,600 lbs 1st layer	230 / 3 / 60	13–24 fpm	140–200 ft
3WG4-M	4,000 lbs 1st layer	115 / 1 / 60	9–16 fpm	140–200 ft
3WG4-M	4,600 lbs 1st layer	230 / 3 / 60	13–24 fpm	140–200 ft
3WG4T-M	4,600 lbs 1st layer	230 / 3 / 60	13–28 fpm	220–300 ft

METRIC

Series	Load Rating	Power Supply	Line Speed	Drum Capacity
3WG4-B	1,814 kg 1st layer	115 / 1 / 60	2–4 mpm	42–60 m
3WG4-B	2,086 kg 1st layer	230 / 3 / 60	4–7 mpm	42–60 m
3WG4-M	1,814 kg 1st layer	115 / 1 / 60	2–4 mpm	42–60 m
3WG4-M	2,086 kg 1st layer	230 / 3 / 60	4–7 mpm	42–60 m
3WG4T-M	2,086 kg 1st layer	230 / 3 / 60	4–8 mpm	67–91 m

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

THERN® HEAVY-DUTY ELECTRIC POWER WINCHES

Engineered to Effortlessly Move the World's Largest Loads

When you need serious winch power, don't settle for less than the best. Thern's heavy-duty electric power winches can lift, pull, or position up to 100,000 lbs. They're designed to traverse long distances, accommodate rapid line speeds, and give you ultimate control. Backed by a steadfast reputation of toughness, versatility, and reliability, you can rely on our power winches to perform flawlessly in rail yards, on construction sites, positioning barges, and within mining operations to keep the world moving.

4WS Series

Up to 26,000 lb / 11,793 kg Capacity

Perfect for long-lift or long-pull applications with single-phase power, these economical winches with helical/worm and spur gearing provide all the flexibility you need.

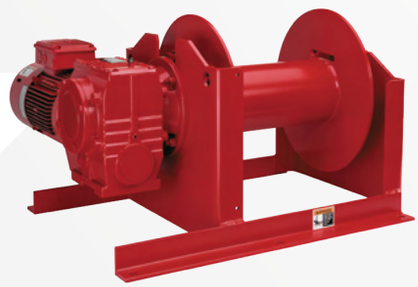
4HS Series

Up to 26,000 lb / 11,790 kg Capacity

Here's your ideal solution with dual-stage gear reduction for pulling jobs that require a clutch for paying out line, while traversing long distances and maintaining fast line speeds.

4HWF Series

Up to 8,000 lb / 3,628 kg Capacity



Look no further for an electric winch with helical/worm gears that's built for extreme environments, hard-to-reach locations, and operations requiring high-duty cycles/continuous use.

UP TO 100,000 LB CAPACITY

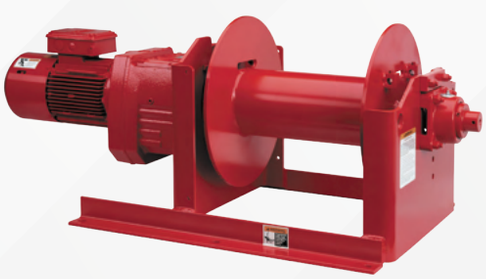
FEATURES*

- Premium, Industrial-Duty Electric Motors
- Worm Gearing for Precise Load Control
- Enclosed Oil Bath Dissipates Heat & Provides Continuous Lubrication
- Load-Holding Brakes Facilitate Safe Operation
- Mount on Floor, Wall, or Ceiling for Flexible Installation and Use
- Weathertight NEMA Controls Available
- Modular Designs for Quick Customization to Meet Your Specific Requirements
- Industry-Leading Warranty to Ensure Your Complete Satisfaction

*Features will vary depending on the model.

4HPF Series

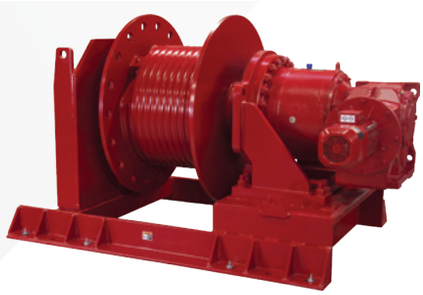
Up to 25,000 lb / 11,339 kg Capacity



Cut your maintenance costs with these highly efficient power winches with a helical/parallel gear set that delivers consistent performance for your most demanding pulling applications.

4HBP Series

Up to 100,000 lb / 45,359 kg Capacity



If you need significant pulling or lifting power, rely on Thern's 4HBP winches with high-torque planetary gearing to tackle the biggest and toughest jobs.

These products are not for lifting people or things over people.

Complete, downloadable details online
thern.com

Thern Winches & Cranes

4WS SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

HEAVY-DUTY, DIRECT-DRIVE GEARS

Enhance Load Control and Positioning

The 4WS Series of power winches (800 to 26,000 pounds) is designed to lift, lower, pull, or position heavy loads. Heavy-duty spur and worm gears, plus direct-drive gearing enhance load security and positioning accuracy. Sealed cast-iron gearcase housing with integral oil bath lubricates rotating gears for long service life. Ideal for long-lift or long-pull applications with single-phase power.

Flange-Mounted Premium Motor & Enclosure

- Reversible, three-phase, industrial-grade motor, endures continuous operation. Single-phase version also available
- A totally enclosed, fan-cooled (TEFC) design, featuring IP44+ and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1

Product Shown: 4WS6M12

Durable Gears & Gearbox Design

- Heavy-duty spur gears, providing secondary reduction, are guarded with grease zerks for easy lubrication and maintenance
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for primary gears dissipates heat and provides continuous lubrication for enhanced service life
- Direct-drive gearing, featuring spur and worm gears, enhance load control and positioning while resisting wear
- Primary speed reducers meet AGMA and/or DIN standards

Load-Holding Motor Disk Brake

- Spring-set, electrically-released brake helps control loads and facilitates safe operation

Thern Winches & Cranes

PERFORMANCE

ASME B30.7 Compliance Available

- Contact Thern for details

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and life of wire rope
- Anchors allow cable to be over or under wound and provide multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4WS1M6	1,500 lbs	.5–1.5 hp	17–44 fpm	260 ft	Yes
4WS3M10	3,700 lbs	1–3 hp	8–23 fpm	500 ft	Yes
4WS6M12	6,400 lbs	1–5 hp	4–24 fpm	660 ft	Yes
4WS9M18	10,000 lbs	5–10 hp	13–32 fpm	1,500 ft	No
4WS16M20	16,000 lbs	7.5–15 hp	12–35 fpm	1,530 ft	No
4WS26M26	26,200 lbs	10–25 hp	10–36 fpm	1,480 ft	No

METRIC

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4WS1M6	680 kg	.37–1.1 kW	5–13 mpm	79 m	Yes
4WS3M10	1,675 kg	.75–2.2 kW	2–7 mpm	152 m	Yes
4WS6M12	2,900 kg	.75–3.7 kW	1–7 mpm	201 m	Yes
4WS9M18	4,535 kg	3.7–7.5 kW	3–9 mpm	457 m	No
4WS16M20	7,255 kg	5.5–11 kW	3–10 mpm	466 m	No
4WS26M26	11,880 kg	7.5–18.5 kW	3–10 mpm	451 m	No

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

4HS SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

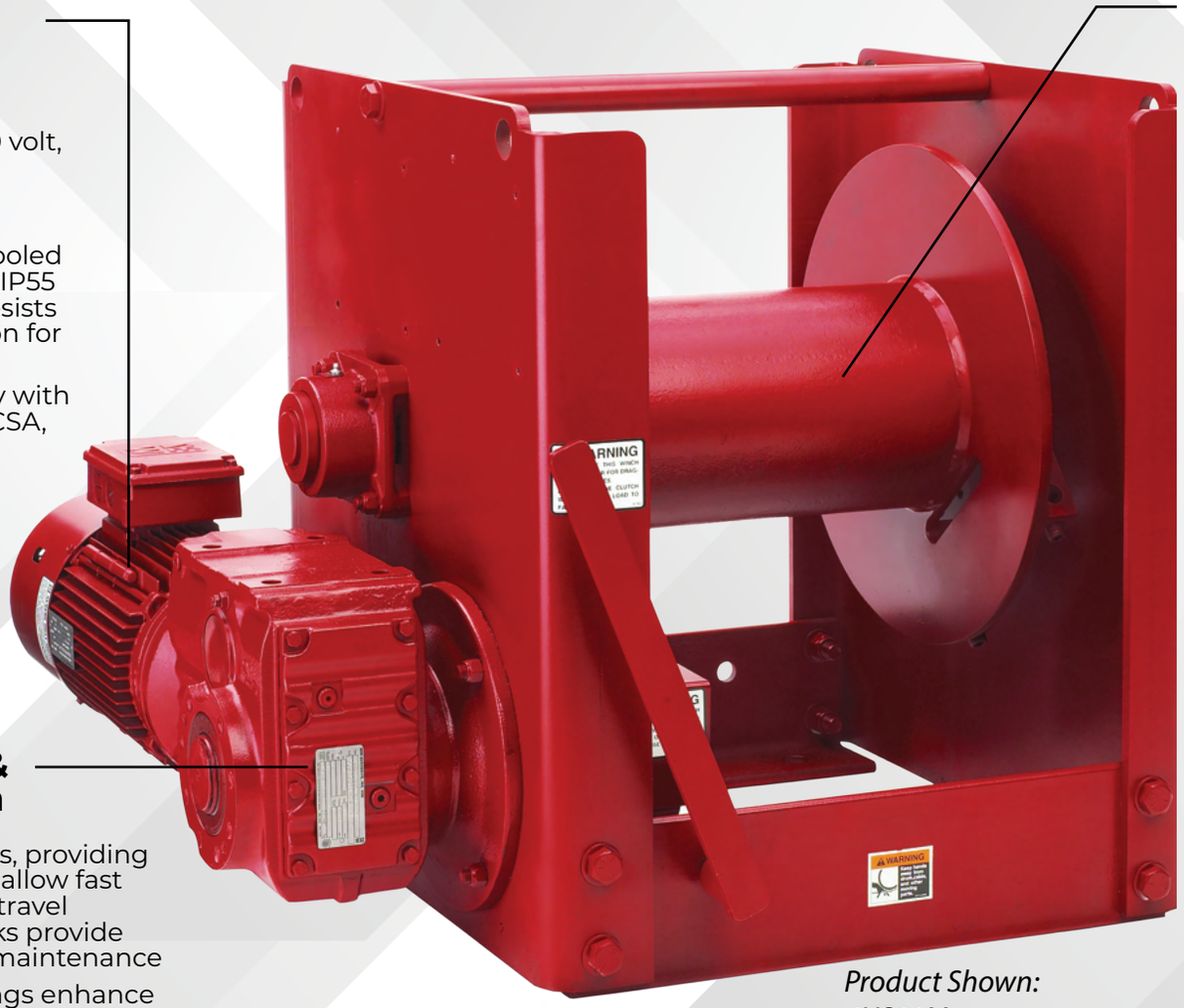
DUAL-STAGE GEAR REDUCTION

for Economical Handling of Large Loads

The 4HS Series of power winches (5,000 to 26,000 pounds) is designed for applications requiring long travel distances and fast line speeds. A combination of directly driven, helical/bevel or helical/parallel and spur gearing provides durability and high efficiency—up to 89 percent. Modular design allows customization to meet specific customer specifications. Typical applications include rail yards, conveyor belt tensioning, and barge or dredge positioning.

Flange-Mounted Premium Motor & Enclosure

- Energy-efficient 230/460 volt, reversible, three-phase, industrial-grade motor, endures continuous use
- A totally enclosed, fan-cooled (TEFC) design, featuring IP55 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1



Product Shown: 4HS11M

Durable Gears & Gearbox Design

- Heavy-duty spur gears, providing secondary reduction, allow fast line speeds and long travel distances. Grease zerks provide easy lubrication and maintenance
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for rotating gears dissipates heat and provides continuous lubrication for enhanced service life
- Primary speed reducers meet AGMA and/or DIN standards

Modular Design

- Flexible winch design allows customization by Thern to meet specific customer requirements

Thern Winches & Cranes

PERFORMANCE

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and life of wire rope
- Anchors allow cable to be over or under wound and provide multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HS6M	6,600 lbs	2–7.5 hp	13–39 fpm	850 ft	Yes
4HS11M	11,000 lbs	5–10 hp	15–37 fpm	1,170 ft	Yes
4HS16M	16,100 lbs	5–15 hp	11–37 fpm	1,530 ft	Yes
4HS26M	26,000 lbs	10–20 hp	13–29 fpm	1,070 ft	Yes

METRIC

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HS6M	2,290 kg	1.5–5.5 kW	4–11.9 mpm	259 m	Yes
4HS11M	4,985 kg	3.7–7.5 kW	4.6–11.3 mpm	356 m	Yes
4HS16M	7,300 kg	3.7–11 kW	3.4–11.3 mpm	466 m	Yes
4HS26M	11,790 kg	7.5–15 kW	4–8.8 mpm	326 m	Yes

ASME B30.7 Compliance Available

- Contact Thern for details

Load-Holding Motor Disk Brake

- Spring-set, electrically-released brake helps control loads and facilitates safe operation

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

4HWF SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

HELICAL/WORM GEARS

Enhance Load Control & Positioning Accuracy

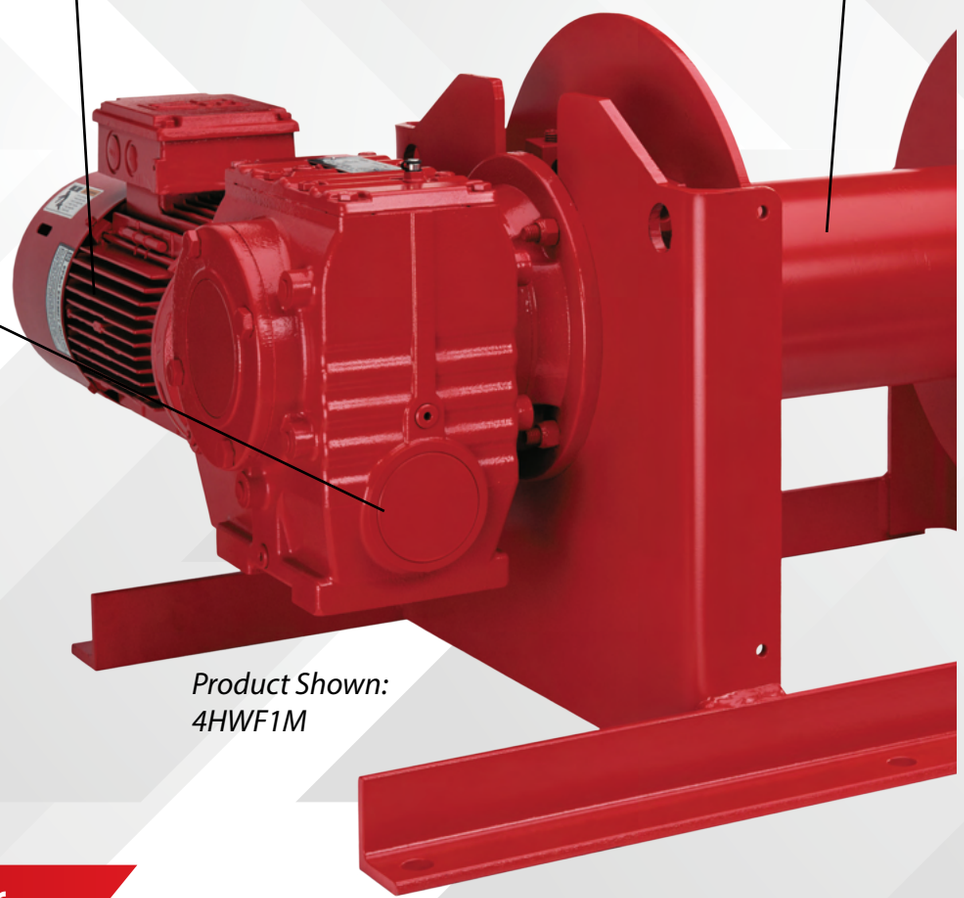
The 4HWF Series of power winches (1,500 to 8,000 pounds) is designed to lift, lower, pull, or position heavy loads. A combination of directly driven, helical and worm gears, minimizes maintenance while delivering dependable operation. A modular design allows easy customization to exact customer specifications. These winches are perfect for extreme environments, hard-to-reach locations, and operations requiring high-duty cycles/continuous use. Typical applications include shipboard winches, mining, construction, rail yards, wind turbines, and cargo handling facilities.

Flange-Mounted Premium Motor & Enclosure

- Energy-efficient 230/460 volt, reversible, three-phase, industrial-grade motor, endures continuous use
- A totally enclosed, fan-cooled (TEFC) design, featuring IP66 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1

ASME B30.7 Compliance Available

- Contact Thern for details



Product Shown: 4HWF1M

Direct-Drive Gear Reducers & Right-Angle Gearbox Design

- Right-angle gearbox decreases overall product length for tight spaces
- Direct-drive gear reducers, comprised of heat-treated helical/worm gears, deliver 65 to 76 percent efficiency and enhance load control and positioning
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for rotating gears dissipates heat and provides continuous lubrication for enhanced service life
- Primary speed reducers meet AGMA and/or DIN standards

Load-Holding Motor Disk Brake

- Spring-set, electrically released brake helps control loads and facilitates safe operation

Modular Design

- Flexible winch design allows customization by Thern to meet specific customer requirements

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and life of wire rope
- Anchors allow cable to be over or under wound and provide multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request

PERFORMANCE

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HWF1M	1,500 lbs	1.5–2 hp	23–32 fpm	830 ft	No
4HWF2M	2,200 lbs	2–3 hp	22–34 fpm	750 ft	No
4HWF4M	4,000 lbs	3–5 hp	21–35 fpm	2,120 ft	No
4HWF6M	6,000 lbs	5–7.5 hp	24–35 fpm	990 ft	No
4HWF8M	8,100 lbs	7.5–10 hp	27–39 fpm	1,210 ft	No

METRIC

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HWF1M	680 kg	1.1–1.5 kW	7–9 mpm	253 m	No
4HWF2M	995 kg	1.5–2.2 kW	6–10 mpm	228 m	No
4HWF4M	1,810 kg	2.2–3.7 kW	6–10 mpm	646 m	No
4HWF6M	2,721 kg	3.7–5.5 kW	7–10 mpm	301 m	No
4HWF8M	3,670 kg	5.5–7.5 kW	8–11 mpm	368 m	No

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

4HPF SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

HELICAL/PARALLEL IN-LINE GEARING

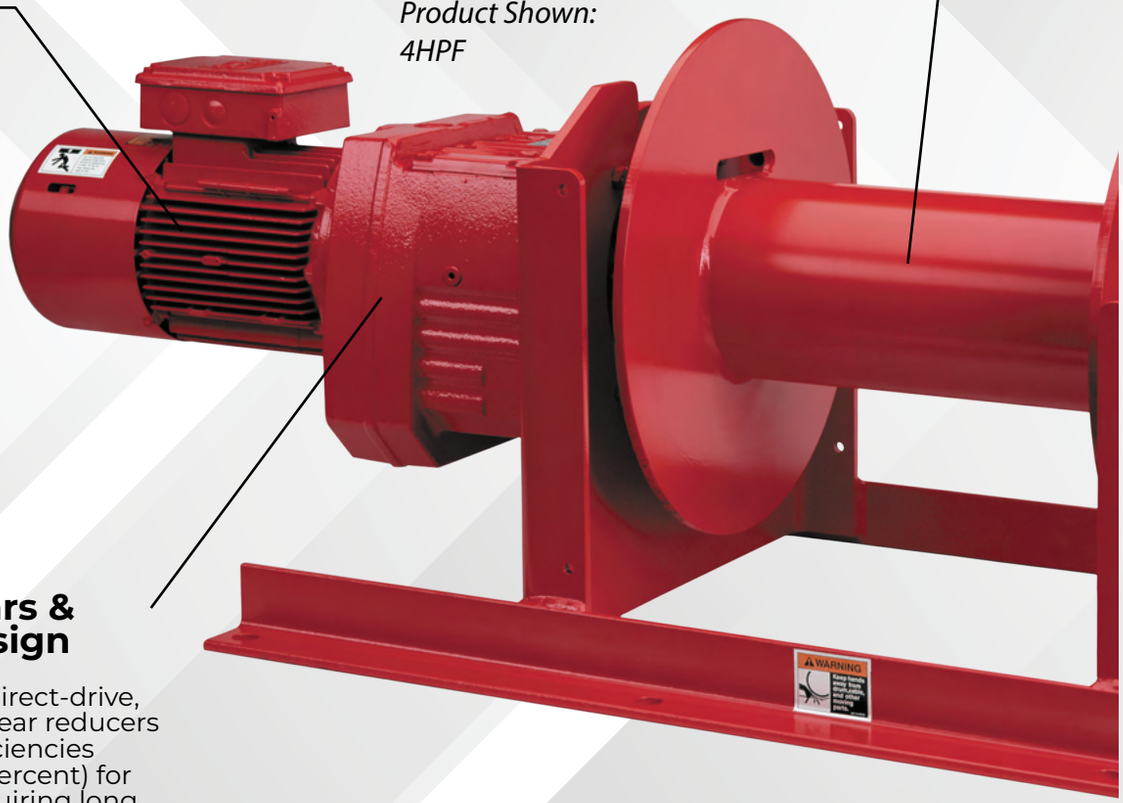
for Highly Efficient Load Handling

The 4HPF Series of power winches (5,000 to 25,000 pounds) is designed for applications requiring long travel distances and fast line speeds. The heat-treated, helical/parallel gear set provides durability and high efficiency—up to 94 percent. A modular design allows configuration to a variety of customer specifications. These winches are ideal for harsh and hazardous environments, including hard-to-reach locations. Typical applications include ship winches, mining, construction, and rail yards.

Energy-Efficient Premium Motor

- Energy-efficient 230/460 volt, reversible, three-phase, industrial-grade motor, endures continuous use
- A totally enclosed, fan-cooled (TEFC) design, featuring IP66 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1

Product Shown:
4HPF



Durable Gears & Gearbox Design

- Fully enclosed, direct-drive, helical/parallel gear reducers deliver high efficiencies (from 88 to 94 percent) for applications requiring long travel distances and fast line speeds
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for rotating gears dissipates heat and provides continuous lubrication for enhanced service life
- Primary speed reducers meet AGMA and/or DIN standards

Modular Design

- Common componentry allows the winch to be easily configured to adapt to specific customer requirements

ASME B30.7 Compliance Available

- Contact Thern for details

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and life of wire rope
- Anchors allow cable to be over or under wound and provide multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request

Thern® Winches & Cranes

PERFORMANCE

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HPF2M	2,100 lbs	1–2 hp	17–34 fpm	830 ft	Yes
4HPF3M	3,300 lbs	1.5–3 hp	17–34 fpm	750 ft	Yes
4HPF5M	5,000 lbs	3–5 hp	21–37 fpm	2,120 ft	Yes
4HPF7M	7,300 lbs	5–7.5 hp	24–38 fpm	990 ft	Yes
4HPF9M	9,000 lbs	5–10 hp	21–41 fpm	1,210 ft	Yes
4HPF15M	15,200 lbs	10–15 hp	22–36 fpm	940 ft	Yes
4HPF20M	20,100 lbs	10–25 hp	17–43 fpm	2,070 ft	*Contact Factory*
4HPF25M	25,200 lbs	15–30 hp	20–42 fpm	1,050 ft	*Contact Factory*

METRIC

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HPF2M	950 kg	.75–1.5 kW	5.2–10.4 mpm	253 m	Yes
4HPF3M	1,495 kg	1.1–2.2 kW	5.2–10.4 mpm	228 m	Yes
4HPF5M	2,265 kg	2.2–3.7 kW	6.4–11.3 mpm	646 m	Yes
4HPF7M	3,310 kg	3.7–5.5 kW	7.3–11.6 mpm	301 m	Yes
4HPF9M	4,080 kg	3.7–7.5 kW	6.4–12.5 mpm	368 m	Yes
4HPF15M	6,890 kg	7.5–11 kW	6.7–11 mpm	286 m	Yes
4HPF20M	9,115 kg	7.5–18.5 kW	5.2–13.1 mpm	630 m	*Contact Factory*
4HPF25M	11,430 kg	11–22 kW	6.1–12.8 mpm	320 m	*Contact Factory*

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

4BP SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

BEVEL, PLANETARY GEAR DRIVEN

Heavy-Duty Winch for Reliable Heavy Lifting and Pulling

The 4BP Series of heavy-duty electric power winches (31,000 to 51,000 pounds) is designed for a wide range of applications including barge and rail car positioning, bulk material handling, and much more. The range of options in lifting capacity, motor power and drum width enable a 4BP winch to be implemented within a relatively small footprint while retaining a high load rating and wire rope capacity. Fixed or variable speed controls may be mounted directly on the winch, minimizing footprint and allowing precise control of the winch.

Dedicated Lifting Points for Installation

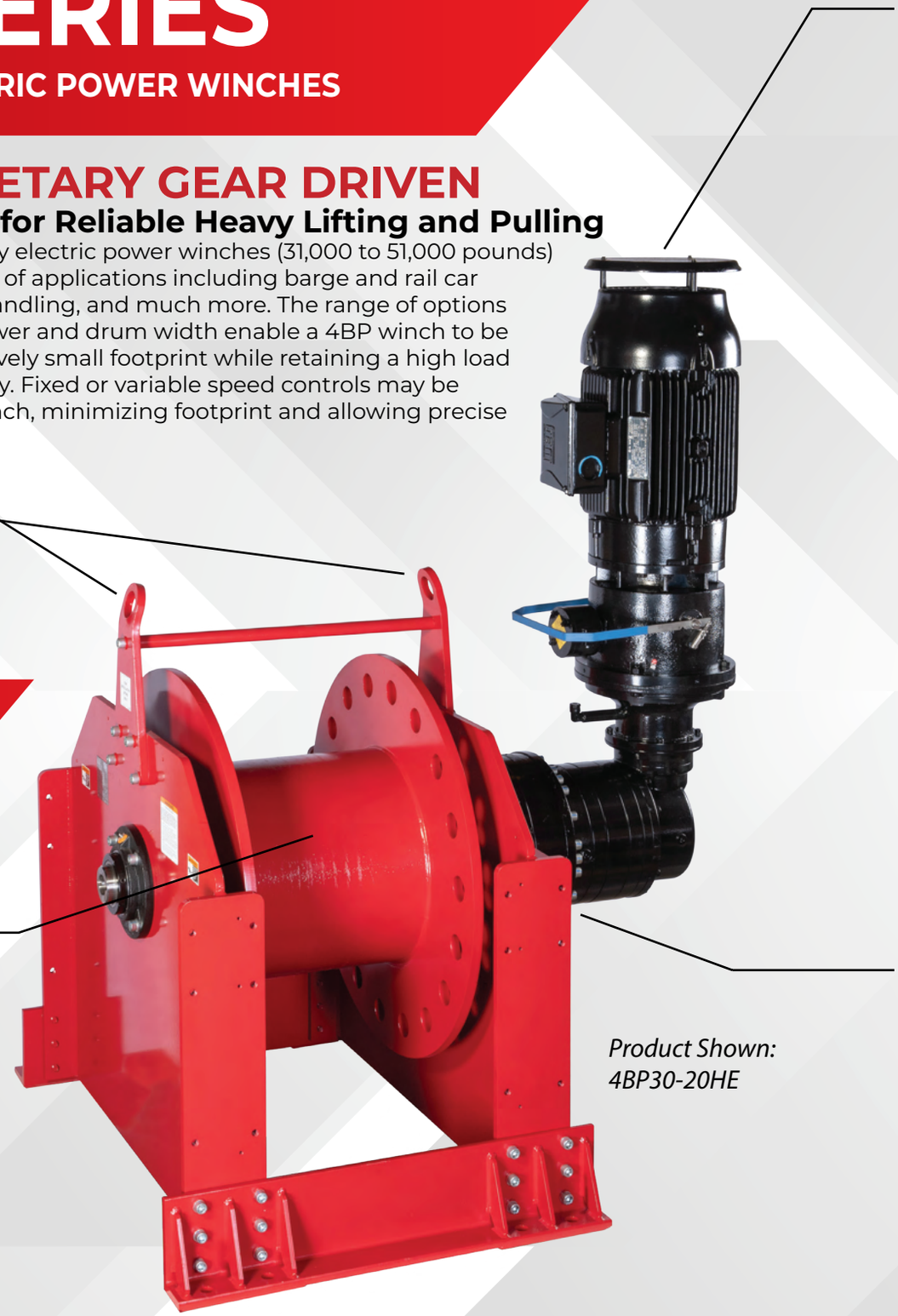
- Make installation safer and easier by utilizing installation lifting points

Standard Options

- 31,000, 41,500 or 51,000 pound load capacity, high or low speed motor and narrow or wide drum width

Large Diameter Welded Steel Drum

- Integrated wire rope anchor points promote uniform winding and long life of wire rope
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Various drum widths available to accomodate required lengths of wire rope and footprint requirements
- Complete wire rope assemblies available upon request



Product Shown: 4BP30-20HE

Optional Accessories

- Rotary Limit Switch
- Drum Guard
- Drum Locking Pin
- Pressure Roller Bar

High-Efficiency Premium Motor

- Energy-efficient 460 volt, reversible, three-phase, industrial-grade motor, endures continuous use at desired load capacity
- Totally enclosed, fan-cooled (TEFC) design, featuring IP66 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1
- Easy operation fail safe electric brake with manual release lever; simply press down handle to release brake

Reliable & Sturday Gearbox Design

- Fully enclosed bevel, planetary gear set provides reliable operation under heavy loads and allows for optimal load control
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for rotating gears dissipates heat and provides continuous lubrication for enhanced service life

IMPERIAL

Series	Load Rating (First Layer)	Drum Width	Line Speed	Motor Power	Motor Voltage
4BP30-20HE	31,000 lbs	20 in	44–84 fpm	50 hp	460/3/60
4BP30-20LE	31,000 lbs	20 in	15–26 fpm	15 hp	460/3/60
4BP30-48HE	31,000 lbs	48 in	44–84 fpm	50 hp	460/3/60
4BP30-48LE	31,000 lbs	48 in	15–26 fpm	15 hp	460/3/60
4BP40-24HE	41,500 lbs	24 in	52–80 fpm	75 hp	460/3/60
4BP40-24LE	41,500 lbs	24 in	17–26 fpm	25 hp	460/3/60
4BP40-48HE	41,500 lbs	48 in	52–80 fpm	75 hp	460/3/60
4BP40-48LE	41,500 lbs	48 in	17–26 fpm	25 hp	460/3/60
4BP50-24HE	51,000 lbs	24 in	44–73 fpm	75 hp	460/3/60
4BP50-24LE	51,000 lbs	24 in	15–25 fpm	30 hp	460/3/60
4BP50-48HE	51,000 lbs	48 in	44–73 fpm	75 hp	460/3/60
4BP50-48LE	51,000 lbs	48 in	15–25 fpm	30 hp	460/3/60

METRIC

Series	Load Rating (First Layer)	Drum Width	Line Speed	Motor Power	Motor Voltage
4BP30-20HE	14,060 kg	508 mm	13-23 mpm	37 Kw	460/3/60
4BP30-20LE	14,060 kg	508 mm	5-8 mpm	11 Kw	460/3/60
4BP30-48HE	14,060 kg	1219 mm	13-23 mpm	37 Kw	460/3/60
4BP30-48LE	14,060 kg	1219 mm	5-8 mpm	11 Kw	460/3/60
4BP40-24HE	18,800 kg	610 mm	16-24 mpm	56 Kw	460/3/60
4BP40-24LE	18,800 kg	610 mm	5-8 mpm	19 Kw	460/3/60
4BP40-48HE	18,800 kg	1219 mm	16-24 mpm	56 Kw	460/3/60
4BP40-48LE	18,800 kg	1219 mm	5-8 mpm	19 Kw	460/3/60
4BP50-24HE	23,135 kg	610 mm	13-22mpm	56 Kw	460/3/60
4BP50-24LE	23,135 kg	610 mm	5-8 mpm	22.3 Kw	460/3/60
4BP50-48HE	23,135 kg	1219 mm	13-22 mpm	56 Kw	460/3/60
4BP50-48LE	23,135 kg	1219 mm	5-8 mpm	22.3 Kw	460/3/60

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

4HBP SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

HIGH-TORQUE PLANETARY GEARING

Moves the Heaviest Loads

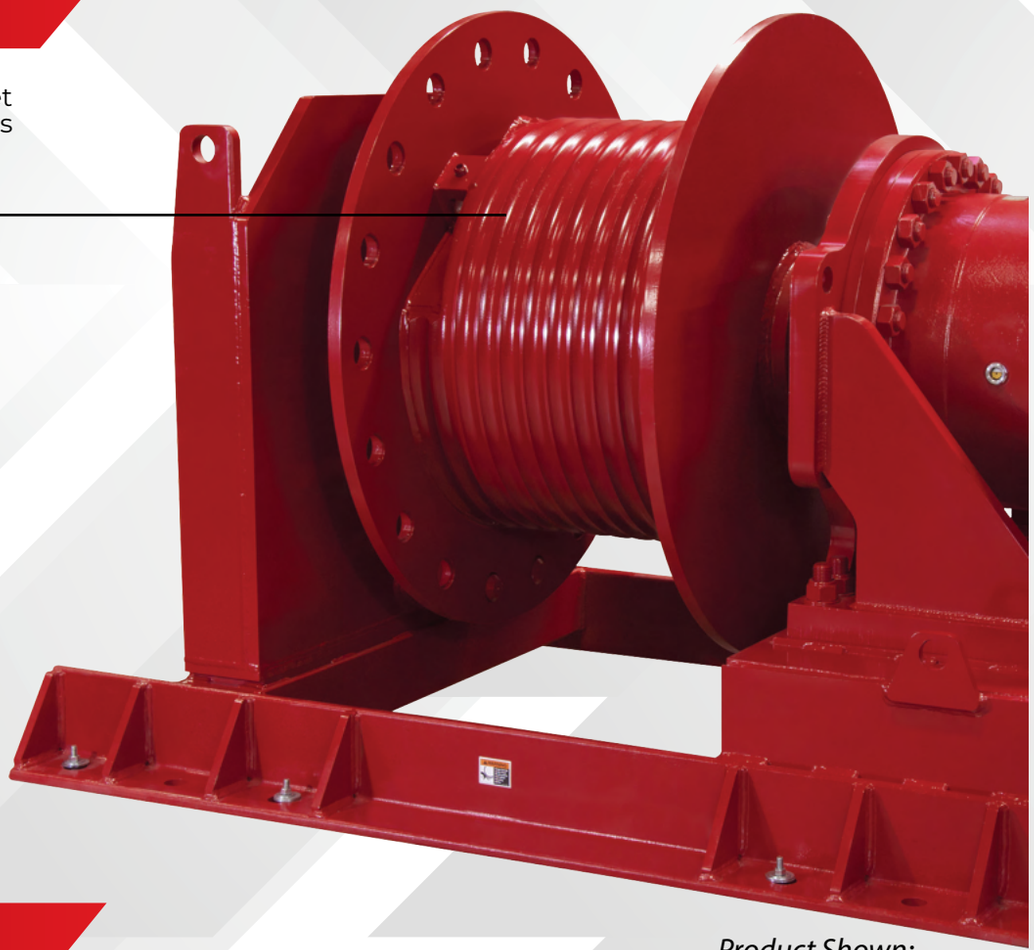
The 4HBP Series of power winches (35,000 to 100,000 pounds) is designed for the heaviest loads that require fast line speeds over long travel distances. Planetary gearing provides high torque in a compact envelope while providing high efficiencies—up to 88 percent. A modular design allows easy customization to exact customer specifications. Perfect for mining, rail car positioning, and construction.

Modular Design

- Flexible winch design allows customization by Thern to meet specific customer requirements

Integral Drum & Shaft Design

- Large-diameter, welded-steel drum, featuring outside flange anchors, promotes uniform winding and extends life of wire rope
- Anchors allow cable to be over or under wound and allow multiple drum exit angles
- Flange-style, self-aligning roller bearings with cast-iron housing maintain smooth drum rotation
- Continuous, solid-steel drum shaft and steel frame provide optimal strength and security
- Complete wire rope assemblies available upon request



Product Shown: 4HBF70M

ASME B30.7 Compliance Available

- Contact Thern for details

Load-Holding Motor Disk Brake

- Spring-set, electrically released brake helps control loads and facilitates safe operation

Durable Gears & Gearbox Design

- High-torque, helical-bevel/planetary gears allow high line-load ratings with large drum diameters
- Fully enclosed, direct-drive gearing delivers dependable operation with minimal maintenance
- Large-capacity bearings enhance smooth operation and durability
- Sealed, cast-iron gearbox with integral oil bath for direct-drive gearing dissipates heat and provides continuous lubrication for enhanced service life
- Primary speed reducers meet AGMA and/or DIN standards

Thern® Winches & Cranes

PERFORMANCE

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HBP	100,000 lbs	15–100 hp	10–100 fpm	1,000 ft	No

METRIC

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
4HBP	45,000 kg	11–75 kW	3–30 mpm	300 m	No

Energy-Efficient Premium Motor

- Energy-efficient 230/460 volt, reversible, three-phase, 60-cycle industrial-grade motor endures continuous use. Also available in worldwide power supplies
- A totally enclosed, fan-cooled (TEFC) design, featuring IP66 and F-class insulation, resists debris and contamination for long service life
- Standard motors comply with industry standards: UL, CSA, IEC, and NEMA MG1

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Refer to technical pages for detailed performance information.

THERN®
AIR WINCHES

Pneumatic-Powered Tuggers that You Can Depend On

High heat, bitter cold, salt, sand, dirt, and grime are no match for Thern's air winches. You can lift, pull, or position loads up to 37,000 lbs with confidence in even the harshest environments. These specialized pneumatic winches are expertly engineered to meet the demanding needs of multiple industries, including oil and gas, construction, mining, and marine, to name a few.

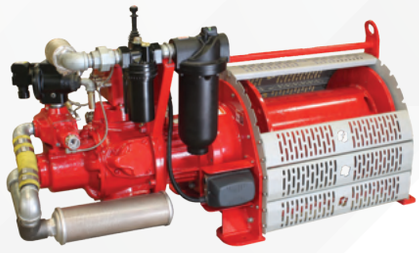
Mini TA Series

Up to 2,700 lb / 1,225 kg Capacity

Here's everything you need in a compact, high-speed, and powerful package. These mini air winches are ideal when access to a three-phase electrical source is limited. You can count on smooth control and variable-speed operation for precise spotting and long lifts.

C Series

Up to 22,000 lb / 9,975 kg Capacity



Thern's C Series air winches are engineered with innovative features that make them faster, lighter, more versatile, and more corrosion-resistant than ever before.

Big Red Series

Up to 37,000 lb / 16,780 kg Capacity

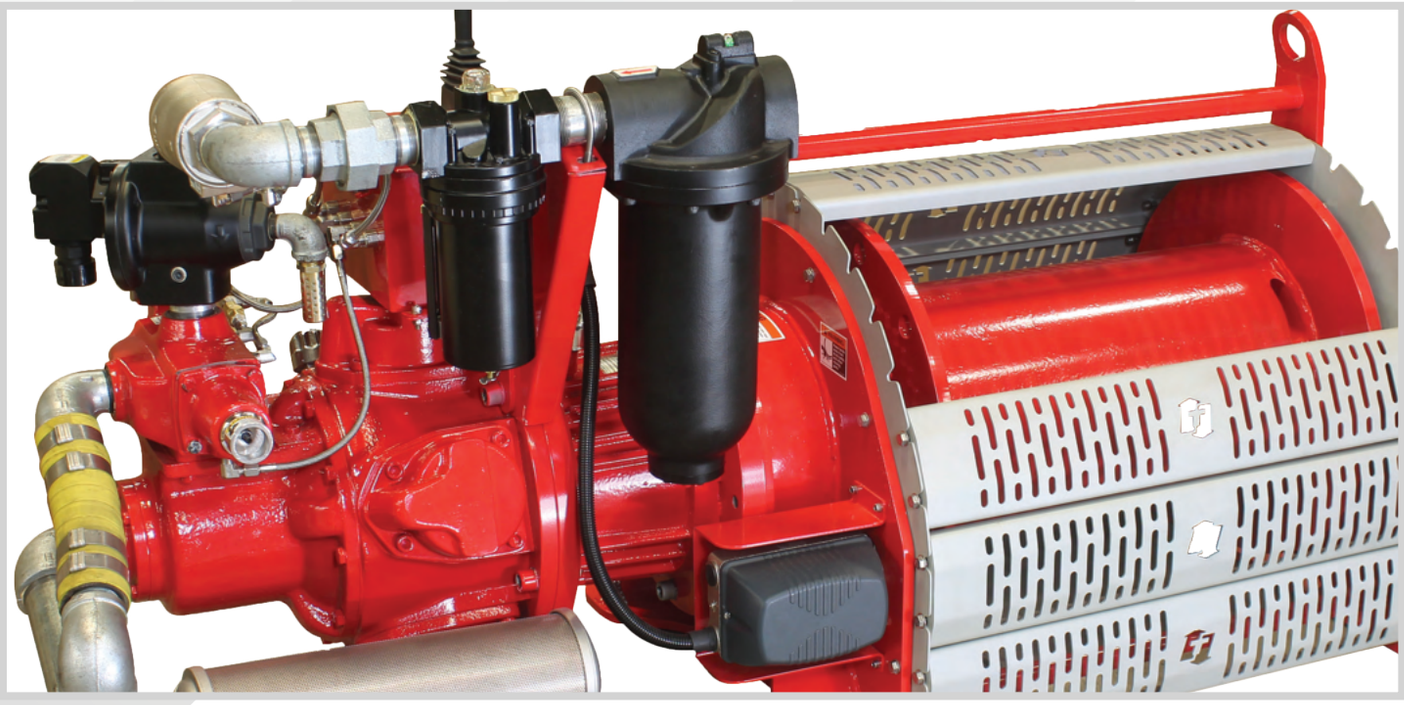
Every job is different, so we work with you every step of the way to ensure you have the right tool for the job, with exceptional lead time on standard and custom products.

UP TO 37,000 LB CAPACITY

FEATURES*

- Radial Piston Motor for Reliable Power & Long Life
- Precise Control Valve for Smooth Control with Variable Speed
- Welded Steel Frame for Optimal Strength & Security (C & Big Red Series)
- Planetary Gears Reduce Power Loss & Heat Generation (C & Big Red Series)
- Manual or Automatic Band Brake for Maximum Stopping Power (Mini TA & Big Red Series)
- Meets ASME 30.7 Requirements for Operation Safety and Performance
- Industry-Leading Warranty to Ensure Your Complete Satisfaction
- Spring-Engaged, Air Pressure-Released & Oil-Cooled Automatic Disk Brake for Extended Duty Cycles (C Series)

*Features will vary depending on the model.



These products are not for lifting people or things over people.

Complete, downloadable details online
thern.com

Thern Winches & Cranes

MINI TA SERIES

LIGHT-DUTY AIR WINCHES

POWER & UTILITY

for Multiple Tasks & Environments

The Mini TA Series of air winches (1,400- or 2,700-pound capacity) or "tuggers" are the utility players on construction and mining sites, as well as on oil and gas rigs. Compact envelopes and variable-speed operation make lifting, moving, and positioning materials fast and easy. They're ideal in hazardous environments or when access to three-phase electrical sources is limited. You can count on smooth control and variable-speed operation for precise spotting and long lifts.

ASME B30.7 Compliance Available

- Contact Thern for details

Smooth Operation

- Anti-friction ball bearings, equipped with grease zerks, provide smooth operation and long life
- Variable-speed control smooths operation for precise spotting and long lifts

Automatic or Manual Band Brake

- Lever engaged/ disengaged manual band brake for simple operation
- Automatic band brake enhances operator autonomy. Brake releases upon activation and sets when power is removed, or the control is released

Product Shown: MTA1000

Standard Convenience Features

- Bolt-together construction promotes easy maintenance, repair, and customization
- Lifting eyes with rounded edges provide easy positioning while extending sling life

Power Dense Radial Piston Motor & Cycloidal Drive

- Internally lubricated for reliable operation and long service life
- Reversible, high-torque design allows precise yet flexible operation
- Drive design provides superior working speed, efficiency, and shock protection

Thern Winches & Cranes

Flexible Operation

- Available winch/valve-mounted manual control lever
- Operator-friendly, remote pendant control (up to 20 feet) with E-Stop reduces operator fatigue (due to vibration) and promotes freedom of movement for better load/task visibility

Corrosion Protection

- Red enamel coating with zinc-plated hardware resists the elements for longer wear. Optional three-part epoxy coating is available for corrosive environments

PERFORMANCE

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
MTA1000	1,400 lbs	1.35 hp	30 fpm	190 ft	No
MTA2000	2,700 lbs	3.5 hp	40 fpm	220 ft	No
MTA2000L	2,700 lbs	3.5 hp	40 fpm	580 ft	No

METRIC

Series	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
MTA1000	635 kg	1 kW	9.1 mpm	57.9 m	No
MTA2000	1,225 kg	2.6 kW	12.2 mpm	67.0 m	No
MTA2000L	1,225 kg	2.6 kW	12.2 mpm	176.7 m	No

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

C SERIES

HEAVY-DUTY AIR WINCHES

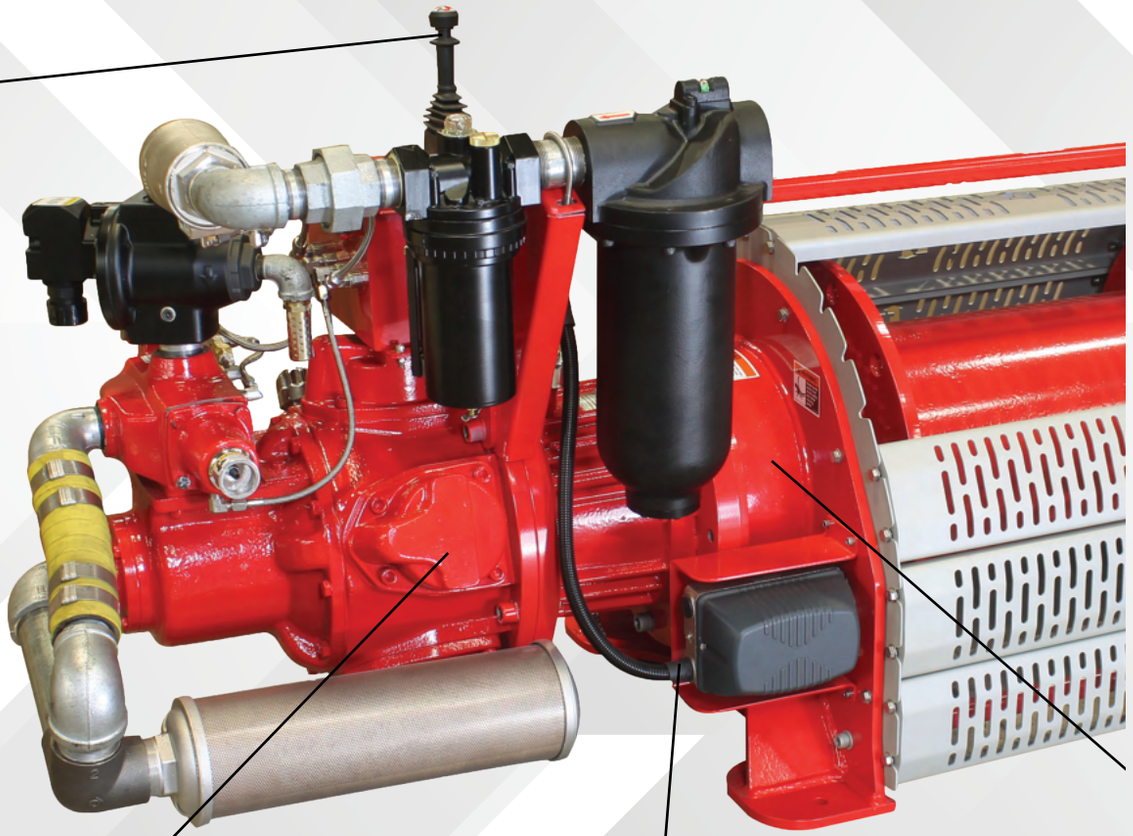
DESIGNED FOR DEMANDING APPLICATIONS

for Reliability, Safety & the Environment

The C Series of air winches (up to 22,000 pounds) is designed for harsh offshore environments. Numerous pre-designed options and accessories allow for quick turnaround of orders and enhance versatility to meet a variety of needs. Specify the CE Package to meet European Union requirements. Lift, lower, pull, or position loads with precision and confidence. Perfect for marine and oil and gas applications.

Flexible Operation & Control

- Variable-speed control promotes smooth operation—perfect for precise spotting and long lifts
- Available winch/valve manual control lever with "lift-to-shift" latches into neutral position for safety
- Panel-mounted control lever with "lift-to-shift" and E-Stop reduces vibration at control, latches into neutral for safety and accommodates rotary travel limits
- Operator-friendly, remote pendant control (up to 50 feet) with E-Stop reduces operator fatigue (due to vibration), promotes freedom of movement for better load/task visibility and accommodates rotary travel limit switches



Product Shown: TA2.5C

Power Dense Radial Piston Motor

- Internally lubricated for reliability and exceptionally long service life
- Reversible, high-torque design allows precise yet flexible operation
- Powerful performance allows high capacity and faster line speeds

Automatic Disc Brake

- Spring-engaged, air-pressure released, and oil-cooled design enhance operator autonomy and promote extended duty cycles and long life
- Automatic brake releases upon activation and sets when power is removed or the controls are released for easier operation
- Sealed oil bath minimizes heat and prevents contamination for reliable operation

ASME B30.7 Compliance Available

- Contact Thern for details

Thern® Winches & Cranes

PERFORMANCE

High-Strength Steel, Epoxy-Coated Construction

- Welded steel frame and drum components provide superior durability
- Large diameter drums promote long rope life
- Multiple drum widths accommodate various load travel distances and fleet angles
- Marine-grade epoxy enhances service life

Durable Gears & Compact Gearbox Design

- Gearbox location within the drum and high-efficiency planetary gearing provides high torque and enhanced power in a compact envelope
- Oil bath, featuring double-lip seals, provides continuous lubrication for gears, minimizes heat, and increases service life while resisting contamination

IMPERIAL

Series	Load Rating	Power Supply	Line Speed	Drum Capacity
TA 2.5 C	5,500 lbs	23.5 hp	111 fpm	340 ft
TA 5 C	11,000 lbs	21.7 hp	45 fpm	690 ft
TA 10 C	22,000 lbs	27.64 hp	24 fpm	680 ft

METRIC

Series	Load Rating	Power Supply	Line Speed	Drum Capacity
TA 2.5 C	2,490 kg	17.5 kW	33.8 mpm	103 m
TA 5 C	4,985 kg	16.2 kW	13.7 mpm	210 m
TA 10 C	9,975 kg	20.6 kW	7.3 mpm	207 m

Standard Safety & Convenience Features

- E-Stop and mounted regulator overload protection enhance safe operation
- Nord-Lock® washers prevent fasteners from loosening during operation
- Easy-access oil drain and fill plug promote ease of maintenance
- Wedge-style rope anchor promotes easy on-site rope installation for under- or over-wound applications
- Removable lifting eyes reduce winch height for compact installation
- Removable cross bars provide improved wire rope exit angles

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

BIG RED SERIES

HEAVY-DUTY AIR WINCHES

POWER & VERSATILITY

Configured Your Way to Suit any Job

The Big Red Series of air winches (7,200 to 37,000 pounds) is designed to lift, lower, pull, or position heavy loads in the harshest environments. Numerous options and accessories allow customization to meet your specific needs—but at off-the-shelf lead-times. A heavy-duty radial piston motor and multiple control and brake configurations make it perfect for marine, mining, construction, and oil and gas applications.

Robust Frame & Drum

- Welded steel frame and drum components provide superior durability
- Multiple drum widths increase rope life and accommodate various load travel distances and fleet angles

ASME B30.7 Compliance Available

- Contact Thern for details

Product Shown: TA2

Durable Gears & Compact Gearbox Design

- Gearbox location within the drum and high-efficiency planetary gearing provides high torque and enhanced power in a compact envelope
- Oil bath, featuring double-lip seals, provides continuous lubrication for gears, minimizes heat, and increases service life while resisting contamination

Multiple Brake Configurations

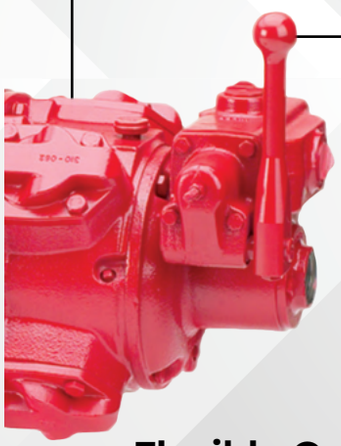
- Lever engaged/disengaged band brake for simple operation
- Automatic band brake enhances operator autonomy
- Sealed, automatic multi-disk brake, featuring continuous lubrication, allows extended duty cycles and resists contamination—ideal for corrosive and dirty environments

Thern Winches & Cranes

PERFORMANCE

Power Dense Radial Piston Motor

- Internally lubricated for reliability and exceptionally long service life
- Reversible, high-torque design allows precise yet flexible operation
- Powerful operation allows high capacity and faster line speeds



Flexible Operation & Control

- Variable-speed control promotes smooth operation—perfect for precise spotting and long lifts
- Available manualcontrol lever simplifies operation
- Operator-friendly, remote pendant control (up to 50 feet) reduces operator fatigue (due to vibration) and promotes freedom of movement for better load/task visibility

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
TA2	7,200 lbs	7.1 hp	30 fpm	1,270 ft	No
TA2H	3,600 lbs	7.1 hp	61 fpm	1,270 ft	No
TA2.5	7,200 lbs	18.3 hp	79 fpm	860 ft	No
TA5	18,000 lbs	17.8 hp	30 fpm	1,520 ft	No
TA7	23,600 lbs	14.4 hp	19 fpm	1,730 ft	No
TA10	37,000 lbs	27 hp	20 fpm	2,780 ft	No

Series	IMPERIAL				
	Load Rating	Power Supply	Line Speed	Drum Capacity	Clutch
TA2	3,265 kg	5.3 kW	9 mpm	385 m	No
TA2H	1,630 kg	5.3 kW	18.5 mpm	385 m	No
TA2.5	3,265 kg	13.6 kW	24 mpm	260 m	No
TA5	8,160 kg	13.3 kW	9 mpm	460 m	No
TA7	10,700 kg	10.7 kW	5.5 mpm	525 m	No
TA10	16,780 kg	20 kW	6 mpm	845 m	No

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

THERN®
DAVIT CRANES

Superior Lifting Equipment that Towers Above the Rest

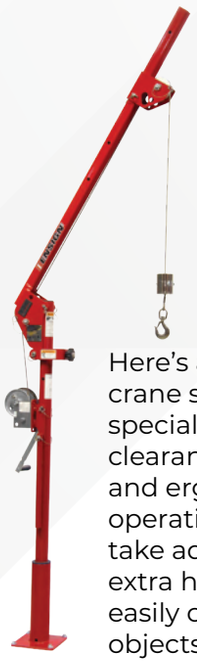
Elevate your expectations with a Thern crane that's built to last, lift after lift. Whether you are looking for a lightweight portable crane or a heavy-duty stationary crane, we have the perfect solution for you. Countless clients across the world have turned to Thern to replace their inefficient jib and gantry cranes with our flexible range of davits. Spot our cranes everywhere, from hoisting pumps at wastewater plants to lifting HVAC components on the roof of a building. Special coating finishes are available to withstand even the harshest environments.

PORTABLE

First Mate®
Up to 850 lb / 385 kg Capacity

Lightweight, economical, comfortable to carry, and easy to use, this portable crane is perfect for a wide variety of simple jobs where adjustable height and reach are not required.

Ensign®
Up to 1,200 lb / 544 kg Capacity



Here's a cost-efficient crane series that's specially designed for clearance, lift height, and ergonomic operation. You can take advantage of the extra hook height to easily clear tall objects.

Commander®
Up to 2,000 lb / 907 kg Capacity

As our most popular line of portable davit cranes with multiple capacities to choose from, this series offers innovative features such as extra hook height, streamlined set-up/ disassembly, and ergonomic operation, to name a few.

UP TO 5,500 LB CAPACITY

FEATURES*

- Fixed or Adjustable Boom Lengths & Angles for Maximum Operation Flexibility
- Variety of Bases in Numerous Protective Finishes Allow for Effortless Mounting & Installation
- Heavy-Gauge Steel Construction Provides Long Service Life
- Manual, Electric, Hydraulic, Pneumatic, or DC Volt Winch Operation to Perform Lifts of Any Size
- Streamlined Set-Up & Disassembly Saves Valuable Time & Effort
- Easy Transport & Storage for Optimal Accessibility
- Smooth 360° Rotation
- Quick-Disconnect Anchor for Easy Attachment or Removal of Wire Rope
- Corrosion-Resistant Finishes to Withstand the Harshest Environments
- Industry-Leading Warranty to Ensure Your Complete Satisfaction

*Features will vary depending on the model.

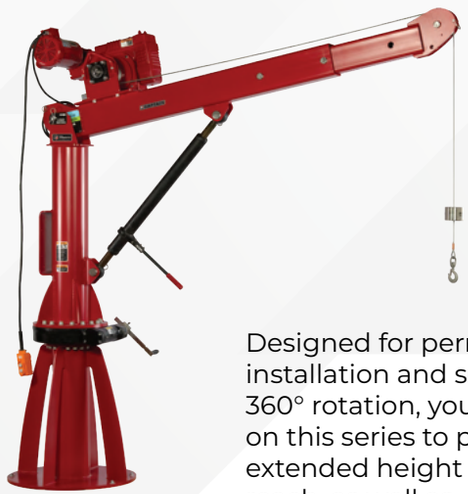
CRANE OPTIONS & ACCESSORIES

Choose between numerous customization options such as base anchor kits and limit switches to enhance our wide variety of davit cranes to meet your specific needs.

STATIONARY

Captain®

Up to 5,500 lb / 2,500 kg Capacity



Designed for permanent installation and smooth 360° rotation, you can rely on this series to provide extended height and reach, as well as heavy-duty capacity.

TRANSPORTABLE

Admiral®

Up to 3,000 lb / 1,360 kg Capacity

You get it all with this powerhouse crane that can handle large loads up to 1.5 tons and still be disassembled for relocation. Featuring an adjustable boom for high lifts and long reach, this will become your go-to crane for years to come.

These products are not for lifting people or things over people.

Complete, downloadable details online
thern.com

Thern Winches & Cranes

MINIMUM ASSEMBLY.
MAXIMUM PRODUCTIVITY.

THERN®

At Thern, we know "some assembly required" should mean minutes—not hours. Our **portable davit cranes** come pre-assembled, with hardware and quick-release clevis pins already attached—no special tools required. That means quick assembly. It also means quick disassembly and transport to storage or bases at other work sites. At Thern, we make things simple…and fast.

STEP 1
FASTEN CRANE BASE SECURELY
Fasten crane base to level, suitable concrete foundation. Consult a structural engineer about the foundation as necessary and adhere to applicable installation codes and regulations.

STEP 2
INSERT MAST INTO BASE
Insert mast into base, ensuring flange bearing is properly seated.

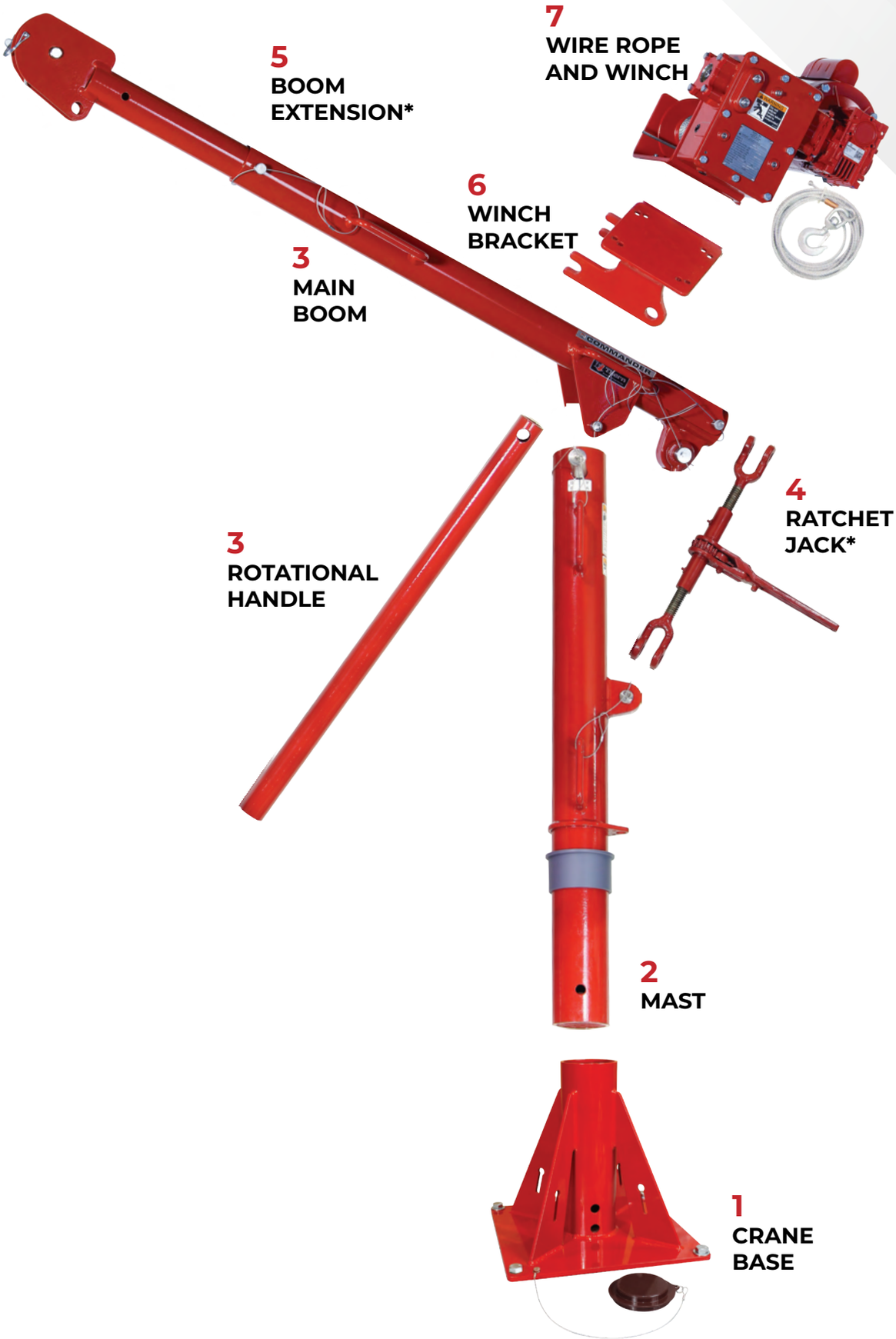
STEP 3
ATTACH MAIN BOOM & ROTATIONAL HANDLE TO MAST
Attach main boom first and then rotational handle next. Secure using attached clevis and lynch pins.

STEP 4
ATTACH RATCHET JACK TO MAST & MAIN BOOM
Attach one end of ratchet jack to mounting ear on main boom and secure with attached clevis and lynch pins. Carefully pivot boom up to fasten other end of ratchet jack to mast mounting ear—secure with clevis and lynch pins.

STEP 5
INSERT BOOM EXTENSION INTO MAIN BOOM
Rotate ratchet jack to lower main boom to just above horizontal position. Insert boom extension and secure with attached clevis and lynch pins.

STEP 6
ATTACH WINCH/BRACKET TO MAIN BOOM
Remove winch bracket from end of main boom and attach winch using fasteners provided. Align notches on load end of winch bracket with tabs on main boom and secure winch/bracket with clevis and lynch pins. Attach winch handle or connect to power if winch is electric.

STEP 7
ATTACH WIRE ROPE
Locate the quick-connect anchor on the drum of the winch. Thread swaged-ball end of the wire rope through the crane sheaves, working from the front of the boom back to the winch. Insert the swaged ball into the anchor and carefully under wind the wire rope onto the winch.



*May not be applicable to all portable cranes

FIRST MATE® 5PF5

PORTABLE DAVIT CRANE

ECONOMICAL, LIGHTWEIGHT

& Easy-to-Use Lifting Power

The 5PF5 First Mate 500 portable davit crane (up to 850 pounds) isn't complicated—but it gets the job done with features and quality you expect from Thern. A fixed boom length, with three operating angles, makes it lightweight, easy to carry, and easy to use. It is perfect for simple jobs where adjustable length is not required. An ergonomic design makes it ideal for water/wastewater applications.

Product Shown:
5PF5-E2

Enhanced Portability

- Disassemble and reassemble easily, using quick-release hardware and pins for quick transport or storage—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5PF5-M1	Powder-coat crane with M4022PB spur gear hand winch	850 lbs / 385 kg
5PF5G-M1	Galvanized crane with M4022PB spur gear hand winch	850 lbs / 385 kg
5PF5-M2	Powder-coat crane with 4WM2 worm gear hand winch	850 lbs / 385 kg
5PF5G-M2	Galvanized crane with 4WM2 worm gear hand winch	850 lbs / 385 kg
5PF5S-M3	Stainless-steel crane with M4042PBSS spur gear hand winch	850 lbs / 385 kg
5PF5-E2	Powder-coat crane with 4WP2 electric winch	850 lbs / 385 kg

Flexible Configurations

- A variety of base and mounting options, including pedestal, flush, and wall-mount, as well as wheel-base, help meet a variety of lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches
- Optional base extension provides additional height without affecting the crane's load rating. Ideal for wall- or flush-mount situations to create additional crane height for obstacle clearance or other needs when 15 inches (381 mm) of additional height is required

360° Rotation & Flexible Operation

- Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation lock maintains load position for easier unloading
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and travel distances. DC motors and various voltage AC motors available

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

ENSIGN® 5PA5

PORTABLE DAVIT CRANE

PORTABLE LIFTING POWER

for Tall Obstacles

The 5PA5 Ensign 500 portable davit crane (up to 500 pounds) is designed to lift and smoothly rotate taller loads, 360 degrees, with minimal boom adjustment. A longer mast and boom provide the extra hook height (up to 101 inches with pedestal base) required to clear safety gates, rails, and other obstacles. An ergonomic design, winch options, quick-disconnect feature, and boom adjustment knob make it extremely user-friendly. Add an optional rotation lock to further enhance unloading. Easy disassembly and reassembly with quick-release hardware and pins maximize portability for storage or use with other bases. Ideal for water/wastewater applications.

Product Shown:
5PA5-M1

Flexible Configurations

- A variety of base mounting options, including pedestal, flush, and wall-mount, help meet numerous lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches. Fits any three convenient/ergonomic positions on the mast via quick-connect pins

Enhanced Portability

- Disassembles and reassemble easily, using quick-release hardware and pins for quick transport to storage onbases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

360° Rotation & Flexible Operation

- Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation lock facilitates unloading ease
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Adjustable boom angles and four sheave assembly positions along boom are easily changed (without tools) to accommodate a variety of applications. Boom adjustment knob allows for easy, one-hand adjustment when not under load
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of speed and power requirements. DC motors and various voltage AC motors available

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments

Thern Winches & Cranes

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5PA5-M1	Powder-coat crane with M4022PB spur gear hand winch	500 lbs / 226 kg
5PA5G-M1	Galvanized crane with M4022PB spur gear hand winch	500 lbs / 226 kg
5PA5-M2	Powder-coat crane with 4WM2V worm gear hand winch	500 lbs / 226 kg
5PA5G-M2	Galvanized crane with 4WM2V worm gear hand winch	500 lbs / 226 kg
5PA5S-M3	Stainless-steel crane with M4042PBSS spur gear hand winch	500 lbs / 226 kg
5PA5-E2	Powder-coat crane 4WP2V electric winch	500 lbs / 226 kg
5PA5X-E2X	Epoxy-gray crane with epoxy-gray 4WP2VEGRA electric winch	500 lbs / 226 kg

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

ENSIGN® 5PA10

PORTABLE DAVIT CRANE

PORTABLE LIFTING POWER

for the Tallest Jobs

The 5PA10 Ensign 1000 portable davit crane (up to 1,200 pounds) is designed to lift and smoothly rotate heavier, taller loads, 360 degrees, with minimal boom adjustment. A longer mast and boom provide the extra hook height (up to 120 inches with pedestal base) required to clear safety gates, rails, and other obstacles. An ergonomic design, winch options, quick-disconnect feature, and boom adjustment knob make it extremely user-friendly. Included on all standard models, roller-ball bearings and rotation lock enhances unloading. Easy disassembly and reassembly with quick-release hardware and pins \maximize portability for storage or use with \other bases. Ideal for water/wastewater applications.

Product Shown:
5PA10-M1

360° Rotation & Flexible Operation

- Specially designed roller bearing at top of base comes standard to enhance smooth, 360-degree rotation under load for precise load placement. Stainless-steel rotation lock comes standard and facilitates unloading ease
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Adjustable boom angles and four sheave assembly positions along boom are easily changed (without tools) to accommodate a variety of applications. Boom adjustment knob allows for easy, one-hand adjustment when not under load
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of speeds and power needs. DC motors and various voltage AC motors available

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements and for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel and epoxy finishes are available for corrosive environments

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5PA10-M1	Powder-coat crane with M4312PB spur gear hand winch	1,200 lbs / 544 kg
5PA10G-M1	Galvanized crane with M4312PB spur gear hand winch	1,200 lbs / 544 kg
5PA10-M2	Powder-coat crane with 4WM2V worm gear hand winch	1,200 lbs / 544 kg
5PA10G-M2	Galvanized crane with 4WM2V worm gear hand winch	1,200 lbs / 544 kg
5PA10S-M3	Stainless-steel crane with M4312PBSS spur gear hand winch	1,200 lbs / 544 kg
5PA10X-E2X	Epoxy-gray crane with epoxy-gray 4WP2VEGRA electric winch	1,200 lbs / 544 kg

Enhanced Portability

- Disassembles and reassembles easily, using quick-release hardware and pins for quick transport to storage onbases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

Flexible Configurations

- A variety of base mounting options, including pedestal, flush, and wall-mount, help meet numerous lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches. Fits any three convenient/ergonomic positions on the mast via quick-connect pins

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

COMMANDER® 5PT5

PORTABLE DAVIT CRANE

HEAVY-DUTY FEATURES

in a Light-Duty Package

The 5PT5 Commander 500 portable davit crane (up to 650 pounds) is packed with features, giving it the same versatility and flexibility of its larger cousins. It is designed to lift, lower, and rotate loads 360 degrees, easily and smoothly. Easy disassembly and reassembly with quick-release hardware and pins maximize portability. A variety of base options, manual or power operation, and telescoping boom with adjustable boom angles make it perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.

360° Rotation & Flexible Operation

- Heavy-duty Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation lock maintains load position for easier unloading
- Innovative rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and speeds. DC motors and various voltage AC motors available

Product Shown:
5PT5-E2

Enhanced Portability

- Disassembles and reassembles easily, using quick-release hardware and pins for quick transport to storage onbases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5PT5G-M1	Galvanized crane with M4022PB spur gear hand winch	650 lbs / 294 kg
5PT5-M2	Powder-coat crane with 4WM2 worm gear hand winch	650 lbs / 294 kg
5PT5G-M2	Galvanized crane with 4WM2 worm gear hand winch	650 lbs / 294 kg
5PT5S-M3	Stainless-steel crane with M4042PBSS spur gear hand winch	650 lbs / 294 kg
5PT5-E2	Powder-coat crane with 4WP2 electric winch	650 lbs / 294 kg
5PT5S-E2X	Stainless-steel crane with gray-epoxy 4WP2EGRA electric winch	650 lbs / 294 kg

Flexible Configurations

- A variety of base and mounting options, including pedestal, flush and wall-mount, as well as wheel-base, help meet unique lifting needs
- A quick-mount winch bracket (no tools required) accommodates several Thern winches. Fits any three convenient/ergonomic positions on the mast via quick-connect pins
- Base extension provides additional height without affecting the crane's load rating. Ideal in wall- or flush-mount situations to maintain crane height for obstacle clearance or other needs when 15 inches (381 mm) of additional height is required

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

COMMANDER® 5PT10

PORTABLE DAVIT CRANE

A WORKHORSE DAVIT CRANE

Packed with Thoroughbred Features

The 5PT10 Commander 1000 portable davit crane (up to 1,200 pounds) is packed with features making it the “go to” davit crane for many applications. It is designed to lift, lower, and rotate loads 360 degrees, easily and smoothly. Add an optional rotational bearing and 12-position lock system to facilitate moving heavier loads. Easy disassembly and reassembly with quick-release hardware and pins maximize portability. A variety of base options, manual or power operation, and telescoping boom with adjustable boom angles makes it perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.

Product Shown:
5PT10-M1

360° Rotation & Flexible Operation

- Heavy-duty Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation bearing and lock ease movement and stabilize unloading
- Innovative rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and speeds. DC motors and various voltage AC motors available

Enhanced Portability

- Disassembles and reassemble easily, using quick-release hardware and pins for quick transport to storage onbases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the tab of the pedestal base or into an optional wire rope keeper or cable spool

Thern Winches & Cranes

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5PT10-M1	Powder-coat crane with M4312PB spur gear hand winch	1,200 lbs / 544 kg
5PT10G-M1	Galvanized crane with M4312PB spur gear hand winch	1,200 lbs / 544 kg
5PT10-M2	Powder-coat crane with 4WM2 worm gear hand winch	1,200 lbs / 544 kg
5PT10G-M2	Galvanized crane with 4WM2 worm gear hand winch	1,200 lbs / 544 kg
5PT10S-M3	Stainless-steel crane with M4312PBSS spur gear hand winch	1,200 lbs / 544 kg
5PT10-E2	Powder-coat crane with 4WP2 electric winch	1,200 lbs / 544 kg
5PT10S-E2X	Stainless-steel crane with gray-epoxy 4WP2EGRA electric winch	1,200 lbs / 544 kg

Flexible Configurations

- A variety of base mounting options, including pedestal, flush and wall-mount, as well as wheel-base, help meet unique lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches.
- Optional base extension provides additional height without affecting the crane's load rating. Ideal for wall- or flush-mount installations to increase crane height for obstacle clearance or other needs. Creates 15 inches (381 mm) of additional height

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

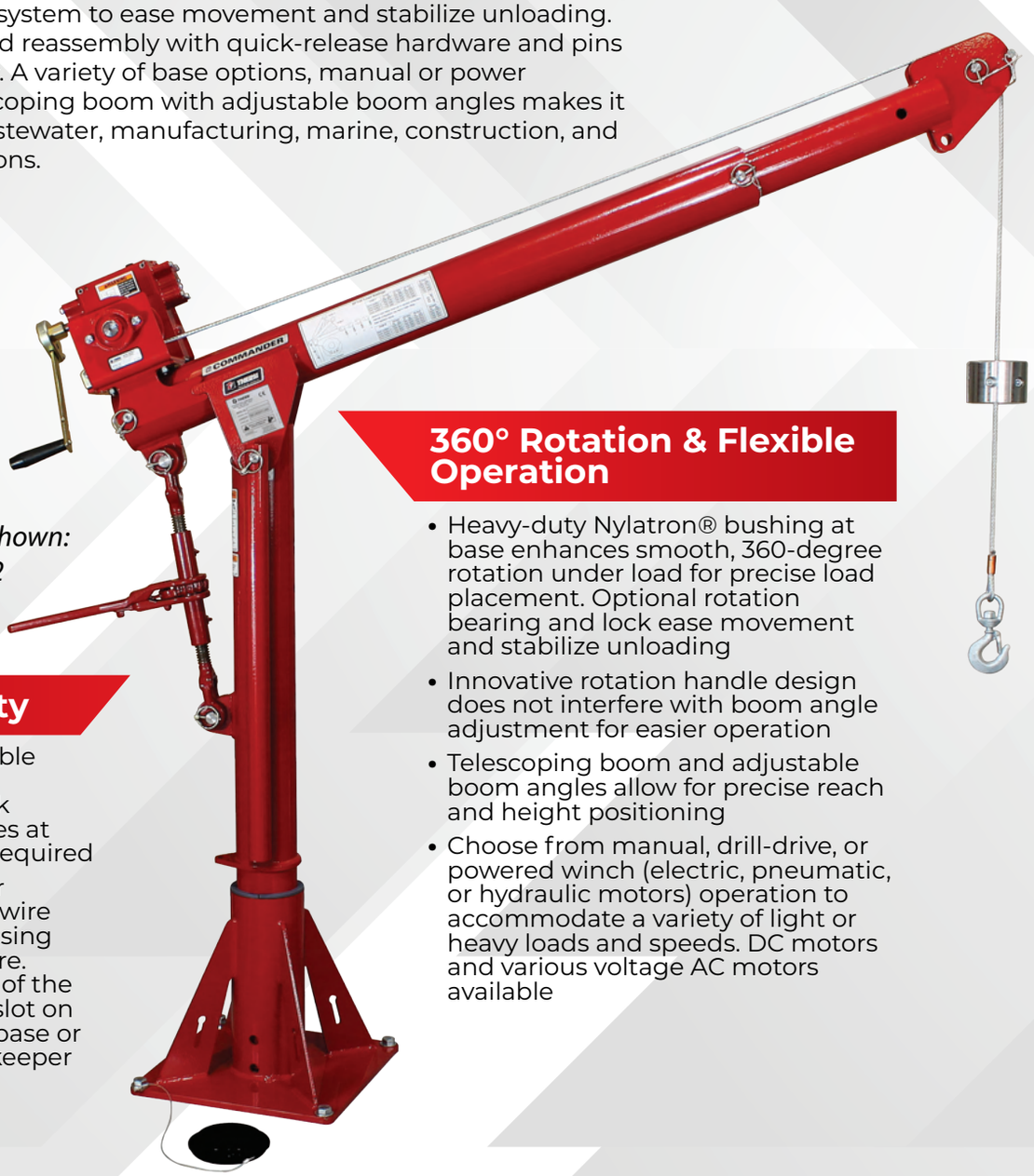
COMMANDER® 5PT20

PORTABLE DAVIT CRANE

HEAVY LIFTING POWER

with Enhanced Flexibility and Portability

The 5PT20 Commander 2000 portable davit crane (up to 2,000 pounds) is one of Thern's largest capacity, portable davit cranes. A maximum hook height (with pedestal base) of 97 inches allows it to hoist large loads and reach over walls, rails, and obstacles. It is designed to lift, lower, and rotate loads 360 degrees, easily and smoothly. Add an optional rotation bearing and 12-position lock system to ease movement and stabilize unloading. Easy disassembly and reassembly with quick-release hardware and pins maximize portability. A variety of base options, manual or power operation, and telescoping boom with adjustable boom angles makes it perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.



Product Shown:
5PT20-M2

Enhanced Portability

- Disassembles and reassemble easily, using quick-release hardware and pins for quick transport to storage onbases at other work sites—no tools required
- Move your crane to another location while keeping the wire rope attached to the load using the quick-disconnect feature. Insert the swaged-ball end of the wire rope into the keyhole slot on the gusset of the pedestal base or into an optional wire rope keeper or cable spool

360° Rotation & Flexible Operation

- Heavy-duty Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation bearing and lock ease movement and stabilize unloading
- Innovative rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and speeds. DC motors and various voltage AC motors available

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5PT20-M1	Powder-coat crane with M4312PB spur gear hand winch	2,000 lbs / 907 kg
5PT20G-M1	Galvanized crane with M4312PB spur gear hand winch	2,000 lbs / 907 kg
5PT20-M2	Powder-coat crane with 4WM2 worm gear hand winch	2,000 lbs / 907 kg
5PT20G-M2	Galvanized crane with 4WM2 worm gear hand winch	2,000 lbs / 907 kg
5PT20S-M3	Stainless-steel crane with M4312PBSS spur gear hand winch	2,000 lbs / 907 kg
5PT20-E2	Powder-coat crane with 4WP2 electric winch	2,000 lbs / 907 kg
5PT20S-E2X	Stainless-steel crane with gray-epoxy 4WP2EGRA electric winch	2,000 lbs / 907 kg

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- Galvanized, epoxy, and 304 or 316 stainless-steel finishes are available for corrosive environments

Flexible Configurations

- A variety of base mounting options, including pedestal, flush and wall-mount, as well as wheel-base, help meet unique lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates several Thern winches.
- Optional base extension provides additional height without affecting the crane's load rating. Ideal for wall- or flush-mount installations to increase crane height for obstacle clearance or other needs. Creates 15 inches (381 mm) of additional height

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

RESCUE RATED

PORTABLE DAVIT CRANE

HEAVY LIFTING POWER

with Enhanced Flexibility and Portability

Retaining all the same quality and material handling benefits as the original Commander Series, Thern's 5PT10 and 5PT20 are now available in new configurations that extend their superior performance to the personnel rescue arena. Thern Rescue Rated Davits are preconfigured with a manually operated worm gear hand winch, ¼" wire rope, and an anchorage connector that are all compliant with ANSI / OSHA standards and can be used as part of a complete one or two person rescue system to rescue individuals from land and water or provide rescue to persons trapped in confined spaces (shafts, tanks, exhaust stacks, etc.) Rescue configurations come with multiple base options to meet a variety of mounting needs. Stainless-steel cranes and bases are also available for the most corrosive environments.

Product Shown:
5PT20R-M2R

Enhanced Portability

- Disassembles and reassemble easily, using quick-release hardware and pins for quick transport to storage onbases at other work sites—no tools required
- Perfect for applications that require material handling and also require a rescue plan for personnel working in the area. These cranes provide robust capabilities for the most demanding loads and can also be quickly deployed should the unthinkable occur and a team member requires lifesaving assistance

360° Rotation & Flexible Operation

- Heavy-duty Nylatron® bushing at base enhances smooth, 360-degree rotation under load for precise load placement. Optional rotation bearing and lock ease movement and stabilize unloading
- Innovative rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning
- Telescoping boom and adjustable boom angles allow for precise reach and height positioning

Thern Winches & Cranes

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Material Capacity	Rescue Capacity
5PT10R-M2R	Powder-coat crane with 4WM2R worm gear hand winch	1,200 lbs / 540 kg	310 lbs / 141 kg
5PT10RS-M2R	Stainless Steel crane with 4WM2R worm gear hand winch	1,200 lbs / 540 kg	310 lbs / 141 kg
5PT10RS-M2RX	Stainless Steel crane with epoxy 4WM2R worm gear hand winch	1,200 lbs / 540 kg	310 lbs / 141 kg
5PT20R-M2R	Powder-coat crane with 4WM2R worm gear hand winch	2,000 lbs / 905 kg	620 lbs / 282 kg
5PT20RS-M2R	Stainless Steel crane with 4WM2R worm gear hand winch	2,000 lbs / 905 kg	620 lbs / 282 kg
5PT20RS-M2RX	Stainless Steel crane with epoxy 4WM2R worm gear hand winch	2,000 lbs / 905 kg	620 lbs / 282 kg

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet/exceed ASTM standards
- Corrosion-resistant, powder-coated frame, mast cap, and stainless-steel fasteners resist the elements for long service life
- 304 stainless-steel finishes are available for corrosive environments

Flexible Configurations

- A variety of base mounting options, including pedestal, flush and wall-mount, as well as wheel-base, help meet unique lifting needs
- A quick-mount winch bracket is standard (no tools required) and accommodates the Thern4WM2R worm gear hand winch

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

RESCUE RATED
PORTABLE DAVIT CRANE

Already have a Thern 5PT10-M2 or 5PT20-M2 that you would like to convert to a Rescue Rated Configuration? Thern Rescue Rated Conversion kits are available that contain the correct wire rope assembly, labels, and supplemental instructions required to give your Thern Davit crane rescue capabilities.

	Rescue Rated Kit	
	5PT10R-M2R-KIT	5PT20R-M2R-KIT

Comes with the following items:

- **WA25-60NT –** Sixty Feet of ¼" Galvanized Aircraft Cable. One end finished with a swaged ball, and the other with a thimble. **Note: Thern Rescue Rated Davit systems were designed, tested, and rated using this specific wire rope assembly. Other types of wire rope or assemblies may not meet required specifications.**

- **ANSI Rated Carabiner –** Triple lock gate, 40kN, carbon steel carabiner rated to ANSI Z359.12.

- **Rescue Rated Labels** – All equipment labels as required by Thern's Rescue Rated design intent and aplicable standards.

- **Supplemental Rescue Rated Instructions** – Additional information related to the rescue rated configuration, its capabilities, restrictions, and important safety notes. Also outlines, labeling inspection, and personnel training requirements per ANSI standards.

NOTE: Rescue Rated Conversion Kits currently not available for model numbers other than the 5PT10-M2 and 5PT20-M2 (steel or stainless steel versions).

Thern®
Winches & Cranes

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

LONG LIFT CRANES

PORTABLE DAVIT CRANE

CRANE FEATURES

- 115 and 230 Volt Option
- Powder Coat, Stainless Steel or Epoxy Finishes
- Effortless Ratchet Boom Adjustment
- No Tools Required for Crane/Winch Assembly
- Limit Switch Ready Versions Available
- Lift up to 2,000 pounds and 385 feet below floor

Product Shown:
5PT10-E2

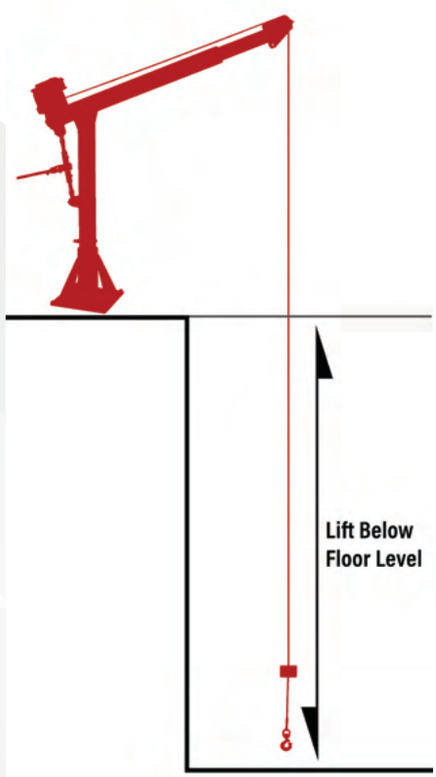
Thern® Winches & Cranes

CRANE INFORMATION

Crane Model	Maximum Lift Below Floor[1]		Line Speed		Maximum Load Rating at Maximum Lift Below Floor		Wire Rope Diameter	
	ft	m	fpm	mpm	lbs	kg	in	mm
5PT10-E2T	237	72.2	8 - 19	2.4 - 5.8	1000	453	3/16	5
	137	41.7	8 - 19	2.4 - 5.8	1000	453	1/4	6
	77	23.4	8 - 19	2.4 - 5.8	1000	453	5/16	8
5PT20-E2T	135	41.1	8 - 19	2.4 - 5.8	1000	453	1/4	6
	75	22.8	8 - 19	2.4 - 5.8	1000	453	5/16	8
5PT20-E3T	385	117.3	9 - 19	2.7 - 5.8	2000	907	1/4	6
	235	71.6	9 - 19	2.7 - 5.8	2000	907	5/16	8
	135	41.1	9 - 19	2.7 - 5.8	2000	907	3/8	10

[1] On Pedestal Base.

Cranes available in powder coat, galvanized, stainless steel and epoxy finishes



BASES (sold separately)

Select the appropriate base(s) for your application from the chart below. Matching your crane with multiple bases provides optimal worksite flexibility and an economical solution for servicing multiple lift stations.

CRANE BASE OPTIONS

Crane Series	Model	Style	Finishes
5PT10	5BP10	Pedestal Mount	Powder Coat, Stainless, Epoxy
	5BF10	Flush Mount	Powder Coat, Stainless, Epoxy
	5BW10	Wall Mount	Powder Coat, Stainless, Epoxy
5PT20	5BP20	Pedestal Mount	Powder Coat, Stainless, Epoxy
	5BF20	Flush Mount	Powder Coat, Stainless, Epoxy
	5BW20	Wall Mount	Powder Coat, Stainless, Epoxy

WIRE ROPE

Assembly
(sold separately)

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

CAPTAIN® 5FT20

STATIONARY DAVIT CRANE

STATIONARY LIFTING POWER

with Extended Reach

The 5FT20 Captain 2000 stationary davit crane (up to 2,000 pounds) is designed for permanent installation. It features a telescoping boom to reach, lift, and rotate very heavy loads 360 degrees—smoothly and easily. A screw jack comes standard to facilitate boom angle adjustments. For long or heavy lifts, add a Thern power winch for greater speed. Red-enamel finish and stainless-steel hardware resist wear in harsh conditions or environments. It's perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.

Product Shown:
5PT20-E2

360° Rotation & Flexible Operation

- Tapered roller bearing enhances smooth, 360-degree rotation under load for precise load placement. Integral 12-position (every 30 degrees) boom rotation lock facilitates heavy lifting and stabilizes unloading
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom length and adjustable boom angles accommodate a variety of height and reach requirements
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of speed and power requirements. DC motors and various voltage AC motors available

Thern Winches & Cranes

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5FT20-M1	Red-enamel crane and ratchet jack with M4312PB spur gear hand winch	2,000 lbs / 907 kg
5FT20-M2	Red-enamel crane and ratchet jack with 4WM2V worm gear hand winch	2,000 lbs / 907 kg
5FT20X-M2X	Gray-epoxy crane and ratchet jack with gray-epoxy 4WM2VEGRA worm hand winch	2,000 lbs / 907 kg
5FT20-E2	Red-enamel crane and ratchet jack with 4WP2 electric winch	2,000 lbs / 907 kg
5FT20X-E2X	Gray-epoxy crane and ratchet jack with gray-epoxy 4WP2EGRA electric winch	2,000 lbs / 907 kg

Durable Construction & Finish

- Boom, mast, and base are fabricated from heavy-gauge steel that limits deflection and meets/exceeds ASTM standards
- Red-enamel finish and stainless-steel fasteners resist the elements for long service life
- Epoxy finishes are available for corrosive enviornments

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

CAPTAIN® 5FT25

STATIONARY DAVIT CRANE

MAXIMUM, STATIONARY LIFTING POWER

with Extended Reach

The 5FT25 Captain 2500 stationary davit crane (up to 2,800 pounds) is designed for some of your heaviest loads. Permanently installed, it features a telescoping boom to reach, lift, and rotate loads a full 360 degrees—smoothly and easily. A screw jack comes standard to facilitate boom angle adjustments. For long or heavy lifts, add a Thern power winch for greater speed. Red-enamel finish and stainless-steel hardware resist wear in harsh conditions or environments. It is perfect for water/wastewater, manufacturing, marine, construction, and oil and gas applications.

360° Rotation & Flexible Operation

- Tapered roller bearing enhances smooth, 360-degree rotation under load for precise load placement. Integral 12-position (every 30 degrees) boom rotation lock facilitates heavy lifting and stabilizes unloading
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Telescoping boom length and adjustable boom angles accommodate a variety of height and reach requirements
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of speed and power requirements. DC motors and various voltage AC motors available

Product Shown:
5FT25-M1

Durable Construction & Finish

- Boom, mast, and base are fabricated from heavy-gauge steel that limits deflection and meets/exceeds ASTM standards
- Red-enamel finish and stainless-steel fasteners resist the elements for long service life
- Epoxy finishes are available for corrosive environments

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5FT25-M1	Red-enamel crane and ratchet jack with M452B spur gear hand winch	2,800 lbs / 1,270 kg
5FT25X-M1X	Gray-epoxy crane and ratchet jack with gray-epoxy M452BEGRA spur gear hand winch	2,800 lbs / 1,270 kg
5FT25-M2	Red-enamel crane and ratchet jack with 2W40V-BM worm gear hand winch	2,800 lbs / 1,270 kg
5FT25X-M2X	Gray-epoxy crane and rachet jack with gray-epoxy 2W40V-BMX worm gear hand winch	2,800 lbs / 1,270 kg
5FT25-E2	Red-enamel crane and ratchet jack with 3WG4B electric winch	2,800 lbs / 1,270 kg
5FT25X-E2X	Gray-epoxy crane and ratchet jack with gray-epoxy 3WG4B electric winch	2,800 lbs / 1,270 kg

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

CAPTAIN® 5FT40

STATIONARY DAVIT CRANE

MASSIVE LIFTING POWER

with Extensive Reach

The 5FT40 Captain Series stationary davit crane is designed for heavy loads up to 5,500 pounds (2,500 kg) and extended reach (ten feet). It also features a maximum hook height of 12 feet. The integral slewing drive withstands large axial, radial, and moment loads while allowing 360 degrees of smooth and easy rotation. A screw jack comes standard for boom angle adjustments. To ease operation and speed productivity, specify an optional power winch or the optional hydraulic boom angle adjustment—or both! Stainless-steel hardware and corrosion-resistant finishes, including an epoxy-based safety-yellow, resist wear in harsh environments. The 5FT40 is perfect for wind energy, marine, construction, water/wastewater, and oil and gas applications.

360° Rotation & Flexible Operation

- Standard with manually operated slewing drive enhances smooth, 360-degree mast rotation under extreme loads for precise load placement
- Standard screw jack for easy boom angle adjustment
- Optional hydraulic boom adjustment package (includes cylinder, hand pump, and control valve) for boom angle adjustments while under load (5FT40H)

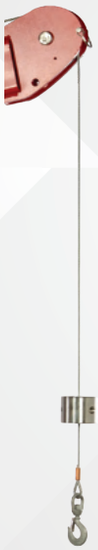
Product Shown: 5FT40-E2

Crane Features & Configurations

- Telescoping boom and adjustable boom angles accommodate a variety of applications
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of light or heavy loads and speeds. DC motors and various voltage AC motors available
- Standard recommended rope size is 3/8–1/2 inch based on your lifting requirements
- Configurable to meet European CE and ATEX standards

Thern® Winches & Cranes

STANDARD CONFIGURATIONS



IMPERIAL/METRIC

Series	Description	Up To Capacity
5FT40-M1	Red-enamel crane and ratchet jack with M452B spur gear hand winch	5,500 lbs / 2,500 kg
5FT40-M2	Red-enamel crane with 2W40V-BM worm gear hand winch and ratchet jack	5,500 lbs / 2,500 kg
5FT40X-M2X	Gray-epoxy crane with 2W40VEGRA-BMX worm spur gear hand winch and ratchet jack	5,500 lbs / 2,500 kg
5FT40-E2	Red-enamel crane with 3WG4B electric winch and ratchet jack	5,500 lbs / 2,500 kg
5FT40X-E2X	Gray-epoxy crane with 3WG4B electric winch and ratchet jack	5,500 lbs / 2,500 kg
5FT40-E3	4HWF6M electric winch—see tech pages for winch options	5,500 lbs / 2,500 kg
5FT40X-E3	Gray-epoxy 4HW6M electric winch—see tech pages for winch options	5,500 lbs / 2,500 kg

All configurations available with 5FT40H crane excluding M1

Durable Construction & Finish

- Boom, mast, and base are fabricated from heavy-duty steel that limits deflection and meets ASTM standards
- Corrosion-resistant finishes and stainless-steel fasteners resist the elements and harsh environments for long service life
- Standard red-enamel finish, optional galvanized, or epoxy (gray, safety-yellow, or custom-color) finishes are available

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

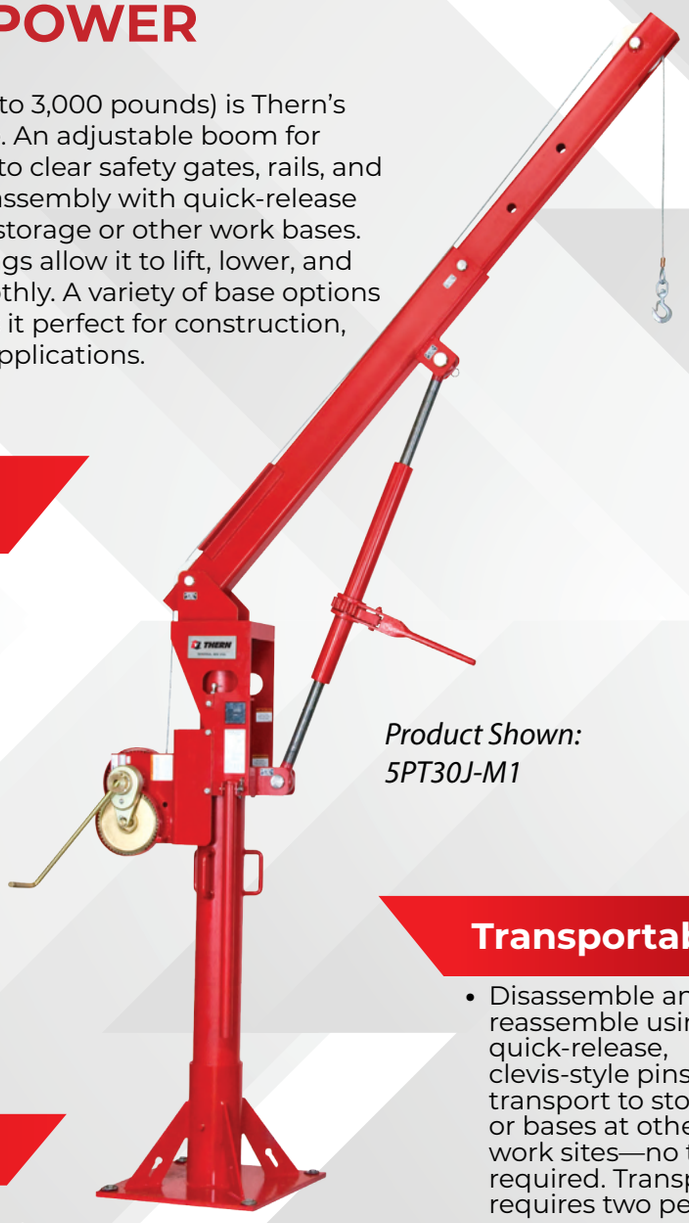
ADMIRAL® 5PT30

TRANSPORTABLE DAVIT CRANE

MAXIMUM LIFTING POWER

with Portable Utility

The 5PT30 Admiral Series davit crane (up to 3,000 pounds) is Thern's largest capacity transportable davit crane. An adjustable boom for high lifts provides almost 10 feet of reach to clear safety gates, rails, and other obstacles. Easy disassembly and reassembly with quick-release hardware and pins enhance transport to storage or other work bases. A combination of roller and needle bearings allow it to lift, lower, and rotate loads 360 degrees, easily and smoothly. A variety of base options and manual or powered operation makes it perfect for construction, manufacturing, marine, and oil and gas applications.



Product Shown:
5PT30J-M1

360° Rotation & Flexible Operation

- Tapered roller and needle bearings enhance smooth, 360-degree rotation under load for precise load placement. Integral 12-position (every 30 degrees) boom rotation lock facilitates heavy lifting and stabilizes unloading
- Rotation handle design does not interfere with boom angle adjustment for easier operation
- Davit boom, supported by integral screw jack or boom brace, telescopes to five different lengths to accommodate a variety of applications
- Choose from manual, drill-drive, or powered winch (electric, pneumatic, or hydraulic motors) operation to accommodate a variety of loads and speeds. DC motors and various voltage AC motors, including three-phase, are available

Durable Construction & Finish

- Heavy-duty, welded structural steel pipe and tubing limit deflection and meet ASTM standards
- Red-enamel finish, mast cap and stainless-steel fasteners resist the elements and harsh environments for long service life
- Galvanized and epoxy finishes are available

Transportable

- Disassemble and reassemble using quick-release, clevis-style pins for transport to storage or bases at other work sites—no tools required. Transport requires two people

Flexible Configurations

- A variety of base and mounting options, including pedestal-, flush-, and wall-mount, help meet multiple lifting needs

STANDARD CONFIGURATIONS

IMPERIAL/METRIC

Series	Description	Up To Capacity
5PT30J-M1	Enamel crane and ratchet jack with M452B spur gear hand winch	3,000 lbs / 1,360 kg
5PT30JG-M1	Galvanized crane and ratchet jack with M452B spur gear hand winch	3,000 lbs / 1,360 kg
5PT30J-M2	Enamel crane and ratchet jack with 2W40V-BMT4P worm gear hand winch	3,000 lbs / 1,360 kg
5PT30JG-M1X	Galvanized crane and ratchet jack with gray-epoxy M452BEGRA spur gear hand winch	3,000 lbs / 1,360 kg
5PT30JX-M1X	Gray-epoxy crane and ratchet jack with gray-epoxy M452BEGRA spur gear hand winch	3,000 lbs / 1,360 kg
5PT30J-E2	Enamel crane and ratchet jack with 3WG4B electric winch	3,000 lbs / 1,360 kg
5PT30JG-E2	Galvanized crane and ratchet jack with 3WG4B electric winch	3,000 lbs / 1,360 kg
5PT30JX-E2X	Gray-epoxy crane and ratchet jack with gray-epoxy 3WG4B electric winch	3,000 lbs / 1,360 kg

NOTICE: These products are not for lifing people or things over people.

Refer to technical pages for detailed performance information.

CRANE
OPTIONS & ACCESSORIES

Base Anchor Kit

Model	Description
AN50A-5	(4) Hilti® zinc-plated steel fasteners 1/2" X 5.50" STL (5PA5, 5PF5, and 5PT5 cranes)
AN50A-5S	(4) Hilti® 304 stainless-steel fasteners 1/2" X 5.50" SST304 (5PA5, 5PF5, and 5PT5 cranes)
AN50A-5S316	(4) Hilti® 316 stainless-steel fasteners 1/2" X 5.50" SST316 (5PA5, 5PF5, and 5PT5 cranes)
AN62A-6	(4) Hilti® zinc-plated steel fasteners 5/8" X 6.00" STL (5PA10, 5PT10, 5PT20, and 5FT20 cranes)
AN62A-6S	(4) Hilti® 304 stainless-steel fasteners 5/8" X 6.00" SST304 (5PA10, 5PT10, 5PT20, and 5FT20 cranes)
AN62A-6S316	(4) Hilti® 316 stainless-steel fasteners 5/8" X 6.00" SST316 (5PA10, 5PT10, 5PT20, and 5FT20 cranes)

Rotational Lock

Model	Description
5P5LCK	For pedestal, wall, and flush-mount bases, 316 stainless steal—available for use 5PA5, 5PF5, and 5PT5

Cable Spooler

Model	Description
RW50	304 stainless-steel reel winds up wire rope when detached from crane

Wire Rope Keeper

Model	Description
RK19-25S	304 stainless-steel bracket holds free end of the wire rope when detached from the crane
RK19-25S316	316 stainless-steel bracket holds free end of the wire rope when detached from the crane

Roller Ball Bearing for 5PT10 Series Crane

Model	Description
5PT10BRG	Red electrostatic, powder-coat paint finish
5PT10BRG-S	304 stainless-steel, electro-polished finish for added protection against corrosion
5PT10BRG-S316	Stainless-steel, electro-polished finish for maximum protection against corrosion
5PT10BRG-SS	304 stainless steel, for use with stainless-steel base only
5PT10BRG-SS316	316 stainless steel, for use with stainless-steel base only

Roller Ball Bearing for 5PT20 Series Crane

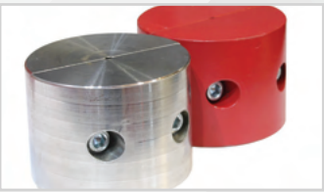
Model	Description
5PT20BRG	Red electrostatic, powder-coat paint finish
5PT20BRG-S	304 stainless-steel, electro-polished finish for added protection against corrosion
5PT20BRG-S316	Stainless-steel, electro-polished finish for maximum protection against corrosion
5PT20BRG-SS	304 stainless steel, for use with stainless-steel base only
5PT20BRG-SS316	316 stainless steel, for use with stainless-steel base only

Limit Switch Ready Winch Options

Model	Description
NOTE: Limit switch winch option requires purchase of limit switch and headache ball (sold separately)	
For 5PF5, 5PA5, 5PA10, 5PT5, 5PT10 , 5PT20 Series Cranes (sold separately)	
E2L (5PA5, 5PA10)	4WP2V electric winch—115/1/60 VAC with 6 ft pendant control—enamel
E2LX (5PA5, 5PA10)	4WP2VEGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray
E4L	4777 electric winch—115/1/60 VAC with 6 ft pendant control—enamel
E4LX	4777EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray
E4DCL	4777DC electric winch—12 volt DC with 10 ft pendant control—enamel
E4DCLX	4777DCEGRA electric winch—12 volt DC with 10 ft pendant control—epoxy gray
For 5FT20 Series Crane Only (sold separately)	
E2L	4WP2 electric winch—115/1/60 VAC with 6 ft pendant control—enamel
E2LX	4WP2EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray
E4L	4771 electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish
E4LX	4771EGRA electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish
E4DCL	E4DCL 4771DC electric winch—12 volt DC with 10 ft pendant control—enamel finish
E4DCLX	4771DCEGRA electric winch—12 volt DC with 10 ft pendant control—gray-epoxy finish
For 5PT30, 5FT25, 5FT40 Series Crane Only (sold separately)	
E2L	3WG4B electric winch—115/1/160 VAC with 6 ft pendant control—enamel finish
E2LX	3WG4BEGRA electric winch—115/1/160 VAC with 6 ft pendant control—epoxy-gray finish
E2TL	3WG4BMT electric winch—115/1/160 VAC with 6 ft pendant control—enamel finish (Unavailable for use with 5FT40)
E2TLX	3WG4MTX electric winch—115/1/160 VAC with 6 ft pendant control—epoxy-gray finish

Drill Drive Kit

Model	Description
ED330-DW11	120 VAC, 11-amp, 330 rpm drill motor to power drive the hand winch. Only available for cranes configured with the M2 winch option. Includes 1-1/8" hex drive socket
ED300-DW06	Cordless drill kit, 60 V brushless motor, 300 rpm drill motor to power drive the M2 hand winch option. Includes 1-1/8" hex drive socket
ED400-DW09	Heavy-duty cordless drill kit, 60 V brushless motor, 400 rpm drill motor to power drive the M2 hand winch option. Includes 1-1/8" hex drive socket



Headache Ball

Model	Description
HB10-12-25	Red enamel painted 10 lb fits 1/8" to 1/4" rope
HB10-25-38	Red enamel painted 10 lb fits 1/4" to 3/8" rope
HB10S-12-25	Stainless-steel 10 lb fits 1/8" to 1/4" rope
HB10S-25-38	Stainless-steel 10 lb fits 1/4" to 3/8" rope
HB10S-44-50	Stainless-steel 10 lb fits 7/16" to 1/2" rope

Base Extension

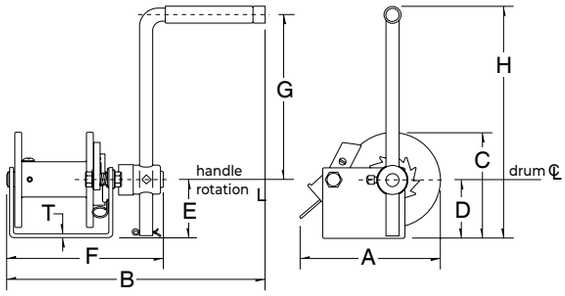
Model	Description
5BE5-15 5BE10-15 5BE20-15	15" (38 cm) base extension available on 5PF5, 5PT5, 5PT10, and 5PT20 with powder-coat, galvanized, 304 & 316 stainless-steel, and epoxy finishes

Workmate

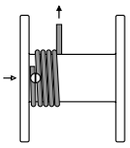
Model	Description
5BH5	Portable hitch-mounted crane base is compatible with the 5PF5, 5PT5, and 5PA5 davit models.

SPUR GEAR SERIES
HAND WINCHES

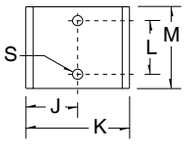
Model M401



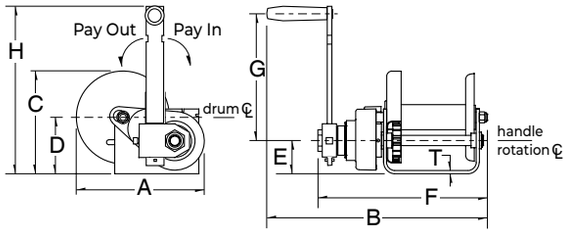
Wire Rope Installation:
Model M401



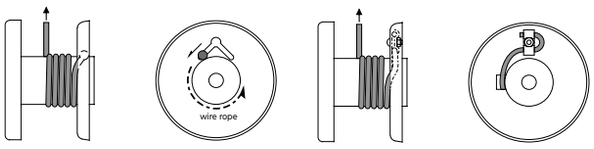
Model M401 Base



Models M4022PB and M4032PB



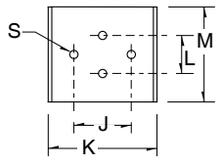
Wire Rope Installation: Models M4022, M4022PB, M4032, and M4032PB



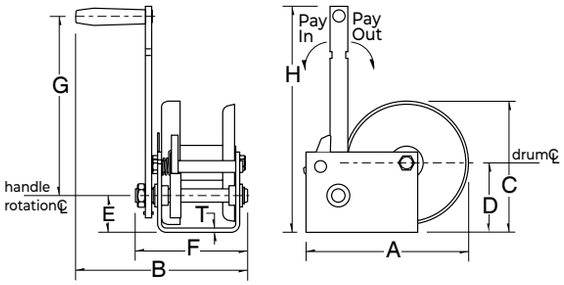
Quick-Disconnect Anchor

Flange-Clip Anchor

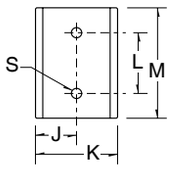
Model M4032 and M4032PB Base



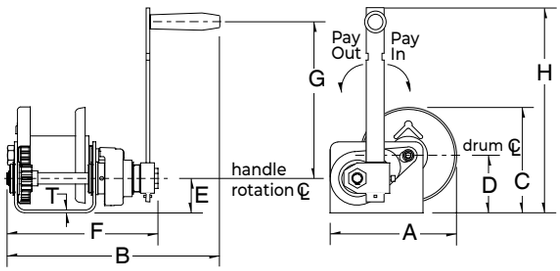
Models M4022 and M4032



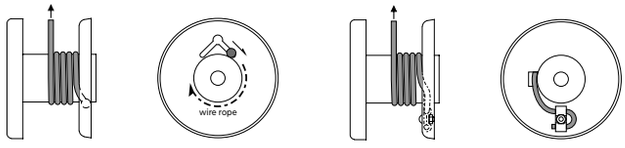
Model M4022 and M4022PB Base



Model M4042PBSS



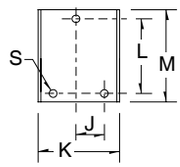
Wire Rope Installation: Model M4042PBSS



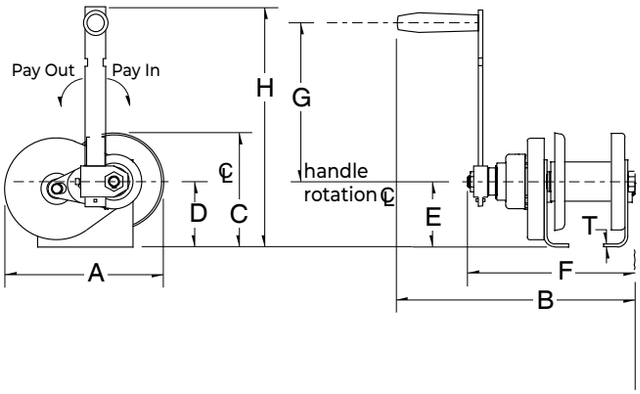
Quick-Disconnect Anchor

Flange-Clip Anchor

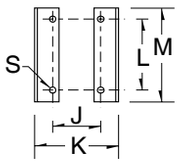
M4042PBSS Base



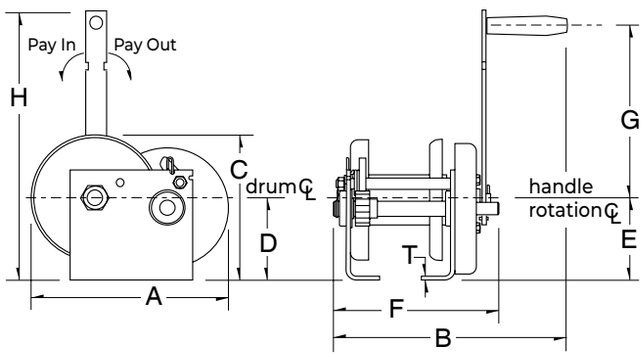
Models M4312PB, M4412PB, and M4312PBSS



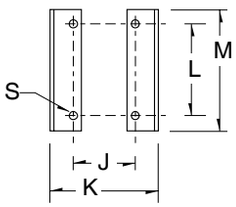
M4312PB, M4412PB, and M4312PBSS Base



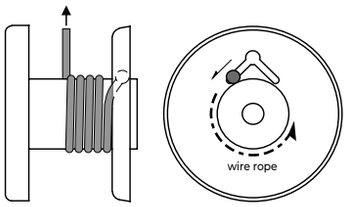
Models M4312 and M4412



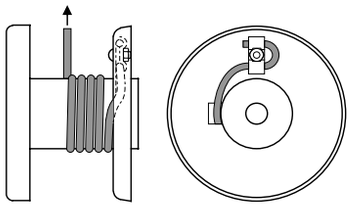
M4042PBSS and M4412 Base



Wire Rope Installation: Models M4312, M4312PB, M4312PBSS, M4412, and M4412PB



Quick-Disconnect Anchor



Flange-Clip Anchor

Spur Gear Hand Winches—Dimensions

	M401		M4022		M4022PB		M4032		M4032PB		M4042PBSS		M4312	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
Drum Diameter	1.50	38.10	1.50	38.10	1.50	38.10	1.50	38.10	1.50	38.10	2.50	63.50	2.50	63.50
Flange Diameter	4.06	103.12	4.56	115.82	4.56	115.82	4.56	115.82	4.56	115.82	5.50	139.70	5.50	139.70
Drum Width	2.75	69.85	2.00	50.80	2.00	50.80	4.00	101.60	4.00	101.6	3.00	76.20	3.00	76.20
A	6.56	166.62	7.34	187.00	7.34	186.60	7.36	187.00	7.36	187.00	8.30	211.00	10.70	272.00
B	10.56	268.22	8.97	228.00	12.12	310.40	11.00	278.00	14.22	361.00	13.90	354.00	13.00	330.00
C	4.56	115.82	6.12	156.00	6.12	156.00	6.12	156.00	6.12	156.00	6.90	176.00	7.20	183.00
D	2.50	63.50	3.27	83.00	3.27	83.00	3.37	83.00	3.27	83.00	3.80	96.00	4.00	101.00
E	2.50	63.50	1.88	48.00	2.00	48.00	1.88	48.00	2.00	48.00	2.30	58.00	4.00	101.00
F	5.81	147.57	5.25	133.00	8.22	209.00	7.19	183.00	10.19	259.00	9.90	249.00	8.30	210.00
G[1]	8.50	215.90	10.53	267.50	10.53	268.00	10.53	268.00	10.53	268.00	10.50	267.00	8.80	222.00
H[1]	11.28	268.51	13.56	344.00	13.12	333.00	13.56	344.00	13.12	333.00	13.40	343.00	13.30	339.00
J	2.19	55.63	1.84	47.00	1.84	47.00	3.00	76.00	3.00	76.00	1.40	37.00	3.30	85.00
K	4.38	111.25	3.68	94.00	3.68	94.00	5.68	145.00	5.68	145.00	5.30	134.00	5.30	134.00
L	2.50	63.50	2.82	72.00	2.82	72.00	2.00	51.00	2.00	51.00	5.00	127.00	5.00	127.00
M	3.50	88.90	5.00	127.00	5.00	127.00	5.00	127.00	5.00	127.00	6.00	152.00	6.00	153.00
S (hole dia.)	.40	10.16	.43	11.00	.43	11.00	.43	11.00	.43	11.00	.40	10.00	.40	10.00
T	.18	4.57	.18	5.00	.18	5.00	.18	5.00	.18	5.00	.20	5.00	.20	5.00

Dimensions are for reference only and subject to change without notice.

[1] Models M401, M4022PB, M4032PB, and M4042PBSS handles are adjustable. Dimension shown is for maximum handle length.

Spur Gear Hand Winches—Dimensions

Model	Drum Dia.		Flange Dia.		Drum Width		A		B		C		D		E		F	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
M4312	2.5	63.5	5.5	139.7	3	76.2	10	254	12.7	322.6	7.15	181.6	4	101.6	4	101.6	8	203.2
M4312PB	2.5	63.5	5.5	139.7	3	76.2	10	254	14.5	368.3	7.15	181.6	4	101.6	4	101.6	10.78	273.8
M4312PBSS	2.5	63.5	5.5	139.7	3	76.2	10	254	14.5	368.3	7.15	181.6	4	101.6	4	101.6	10.78	273.8
M4412	2.5	63.5	5.5	139.7	6	152.4	10	254	15.7	398.8	7.15	181.6	4	101.6	4	101.6	11	279.4
M4412PB	2.5	63.5	5.5	139.7	6	152.4	10	254	17.5	444.5	7.15	181.6	4	101.6	4	101.6	13.78	350.0

[1] Models M4312PB, M4312PBSS, and M4412PB handles are adjustable. Dimension shown is for maximum handle length. Dimensions are for reference only and subject to change without notice.

Spur Gear Double Reduction Hand Winches—Dimensions

Model	Drum Dia.		Flange Dia.		Drum Width		A		B		C		D		E		F	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
M452	4.00	101.6	8.50	215.9	6.38	162.0	15.25	387.3	22.00	558.8	10.69	271.5	5.81	147.5	5.81	147.5	14.81	376.1
M452B	4.00	101.6	8.50	215.9	6.38	162.0	15.25	387.3	21.90	556.2	10.69	271.5	5.81	147.5	5.81	147.5	16.43	417.3
M452B-A	4.00	101.6	8.50	215.9	4.00	101.6	15.25	387.3	19.62	498.3	10.83	275.0	5.81	147.5	5.81	147.5	14.06	357.1
M492	5.00	127	12.38	314.4	7.62	193.5	20.38	517.6	25.12	638.0	14.00	355.6	7.50	190.5	7.50	190.5	18.44	468.3
M492B	5.00	127	12.38	314.4	7.62	193.5	20.38	517.6	25.00	635.0	14.00	355.6	7.50	190.5	7.50	190.5	19.53	496.0
M492-12	5.00	127	12.38	314.4	12.00	304.8	20.38	517.6	29.50	749.3	14.00	355.6	7.50	190.5	7.50	190.5	22.82	579.6
M492B-12	5.00	127	12.38	314.4	12.00	304.8	20.38	517.6	29.38	746.2	14.00	355.6	7.50	190.5	7.50	190.5	23.90	607.0

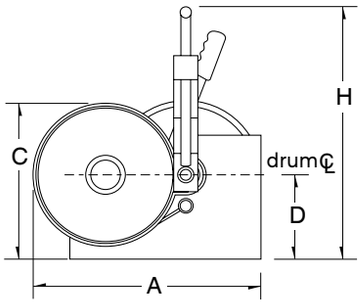
[1] Models M4312PB, M4312PBSS, and M4412PB handles are adjustable. Dimension shown is for maximum handle length. Dimensions are for reference only and subject to change without notice.

M4312PB		M4312PBSS		M4412		M4412PB	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
2.50	63.50	2.50	63.50	2.50	63.50	2.50	63.50
5.50	139.70	5.50	139.70	5.50	139.70	5.50	139.70
3.00	76.20	3.00	76.20	6.00	152.40	6.00	152.40
10.70	272.00	10.20	259.00	13.70	348.00	13.70	348.00
14.40	367.00	14.20	360.00	16.00	406.00	17.40	443.00
7.20	183.00	7.20	183.00	7.20	183.00	7.20	183.00
4.00	101.00	4.00	101.00	4.00	101.00	4.00	101.00
4.40	101.00	4.00	101.00	4.00	101.00	4.00	101.00
10.80	275.00	10.70	273.00	11.30	286.00	13.80	351.00
10.50	268.00	10.50	267.00	8.80	222.00	10.50	268.00
15.10	387.00	15.20	386.00	13.30	339.00	15.10	387.00
3.30	85.00	3.30	85.00	6.30	161.00	6.30	161.00
5.30	134.00	5.30	134.00	8.30	210.00	8.30	210.00
5.00	127.00	5.00	127.00	5.00	127.00	5.00	127.00
6.00	152.00	6.00	152.00	6.00	152.00	6.00	153.00
.40	10.00	.40	10.00	.40	10.00	.40	10.00
.20	5.00	.20	5.00	.20	5.00	.20	5.00

G[1]		H[1]		J		K		L		M		S (hole dia.)		T	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
8.75	222.25	13.35	339.09	3.34	84.84	5.31	134.87	5	127	6	152.4	.40	10.16	.18	4.57
10.59	268.99	15.19	385.83	3.34	84.84	5.31	134.87	5	127	6	152.4	.40	10.16	.18	4.57
10.59	268.99	15.19	385.83	3.34	84.84	5.31	134.87	5	127	6	152.4	.40	10.16	.18	4.57
8.75	222.25	13.35	339.09	6.34	161.04	8.31	211.07	5	127	6	152.4	.40	10.16	.18	4.57
10.59	268.99	15.19	385.83	6.34	161.04	8.31	211.07	5	127	6	152.4	.40	10.16	.18	4.57

G[1]		H[1]		J		K		L		M		S (hole dia.)		T		V	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
18.62	472.9	24.44	620.7	6.75	171.4	9.50	241.3	11.25	285.7	12.50	317.5	.56	14.2	.25	6.3	—	—
18.38	466.8	24.19	614.4	6.75	171.4	9.50	241.3	11.25	285.7	12.50	317.5	.56	14.2	.25	6.3	—	—
18.38	466.8	24.19	614.4	4.50	114.3	7.12	180.8	11.25	285.7	12.50	317.5	.56	14.2	.25	6.3	—	—
22.50	571.5	30.00	762.0	8.00	203.2	12.00	304.8	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	—	—
18.50	469.9	26.00	660.4	8.00	203.2	12.00	304.8	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	—	—
22.50	571.5	30.00	762.0	8.00	203.2	16.38	416.0	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	12.38	314.4
18.50	469.9	26.00	660.4	8.00	203.2	16.38	416.0	15.50	393.7	17.00	431.8	.81	20.5	.38	9.6	12.38	314.4

All Models

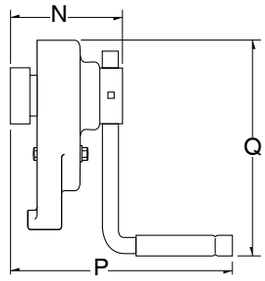


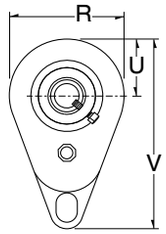
Disc Brakes—Dimensions

Model	N		P		Q[1]		R		U		V	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
MB451	4.97	126.2	10.44	265.1	21.25	539.7	4.87	123.6	2.44	61.9	8.62	218.9
MB491	5.15	130.8	10.62	269.7	21.38	543.0	4.87	123.6	2.44	61.9	10.56	268.2

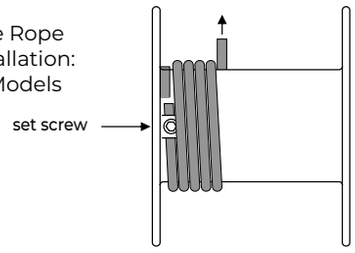
[1] Handles are adjustable. Dimension shown is for maximum handle length. Dimensions are for reference only and subject to change without notice.

Models MB451 and MB491

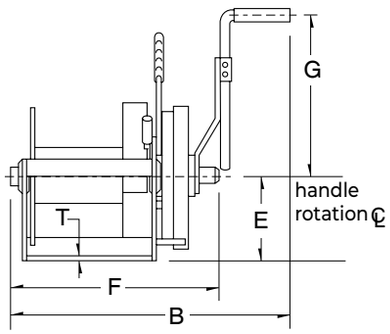




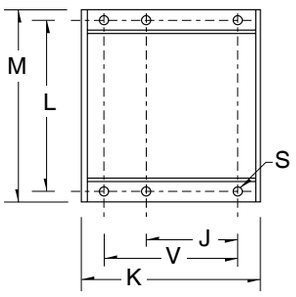
Wire Rope Installation: All Models



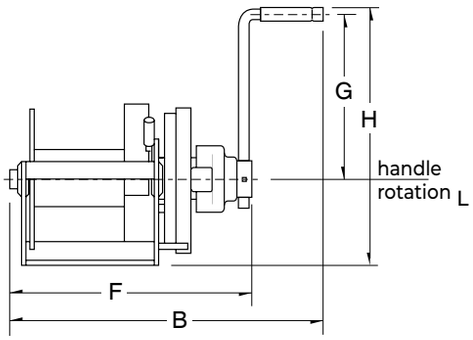
Models M452, M492, and M492-12



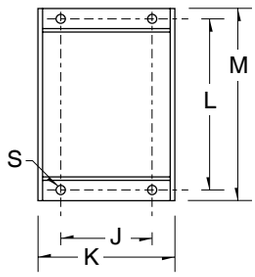
Base for M492-12 and M492B-12



Models M452B, M452B-A, M492B, and M492B-12



Base for M452, M452B, M452B-A, M492, and M492B Models



Configurations and Performance Characteristics—Up to 2,000 lbs

Model	Description	LOAD RATING						Wire Rope Dia.[1]		DRUM CAPACITY[2]						Single Gear Ratio	Double Gear Ratio	Force[3] to lift 1,000 lb		Approx. Ship Weight	
		1st Layer		Mid Drum		Full Drum				1st Layer		Mid Drum		Full Drum							
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)			(lb)	(kg)	(lb)	(kg)
M401	500 lb—marine duty (for pulling only)	500	226	400	181	300	136	1/8 3/16	3.2 4.8	7 4	2 1	60 27	18 8	130 60	39 18	—	—	—	—	8	3
M4022	1,000 lb—marine duty (for pulling only)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	4 3	1 0.9	52 26	15 7	130 57	39 17	2.85:1	—	40	18.1	12	5
M4022PB	1,000 lb—marine duty with brake (for lifting)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	4 3	1 0.9	52 26	15 7	130 57	39 17	2.85:1	—	41	18.6	17	7
M4032	1,000 lb—marine duty (for pulling only)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	11 7	3 2	110 51	33 15	250 110	76 33	2.85:1	—	40	18.1	14	6
M4032PB	1,000 lb—marine duty with brake (for lifting)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	11 7	3 2	110 51	33 15	250 110	76 33	2.85:1	—	41	18.6	18	8
M4042PBSS	1,000 lb—stainless steel with brake (for lifting)	1,000	453	800	362	600	272	1/8 3/16 1/4	3.2 4.8 6.4	12 8 5	3 2 1	110 48 27	33 14 8	240 110 59	73 33 17	3.83:1	—	46 (sgl gear)	20.9	24	10
M4312	2,000 lb—marine duty (for pulling only)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	8 5 4	2 1 1	48 27 17	14 8 5	110 59 39	33 17 11	3.83:1	14.7:1	20 (dbl gear)	9.1	23	10
M4312PB	2,000 lb—marine duty with brake (for lifting)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	8 5 4	2 1 1	48 27 17	14 8 5	110 59 39	33 17 11	—	14.7:1	17 (dbl gear)	7.7	28	12
M4312PBSS	2,000 lb—stainless steel with brake (for lifting)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	8 5 4	2 1 1	48 27 17	14 8 5	110 59 39	33 17 11	—	14.7:1	17 (dbl gear)	7.7	28	12
M4412	2,000 lb—marine duty (for pulling only)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	18 14 11	5 4 3	97 52 35	29 15 10	210 120 77	64 36 23	3.83:1	14.7:1	20 (dbl gear)	9.1	25	11
M4412PB	2,000 lb—marine duty with brake (for lifting)	2,000	907	1,600	725	1,200	544	3/16 1/4 5/16	4.8 6.4 7.9	18 14 11	5 4 3	97 52 35	29 15 10	210 120 77	64 36 23	—	14.7:1	17 (dbl gear)	7.7	30	13

Please contact Thern or nearest Thern Distributor for firm fixed price and delivery.
[1]For Models M4022, M4022PB, M4032, and M4032PB, ball end is available for 1/8 inch and 3/16 inch only. For Models 4042PBSS, M4312, M4312PB, M4312PBSS, M4412, and M4412PB, ball end is available for 3/16-inch and 1/4 inch only.
[2]Actual drum capacities may be 25-30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.
[3]Approximate handle force required to lift 1,000 lbs with an empty drum and maximum handle length.

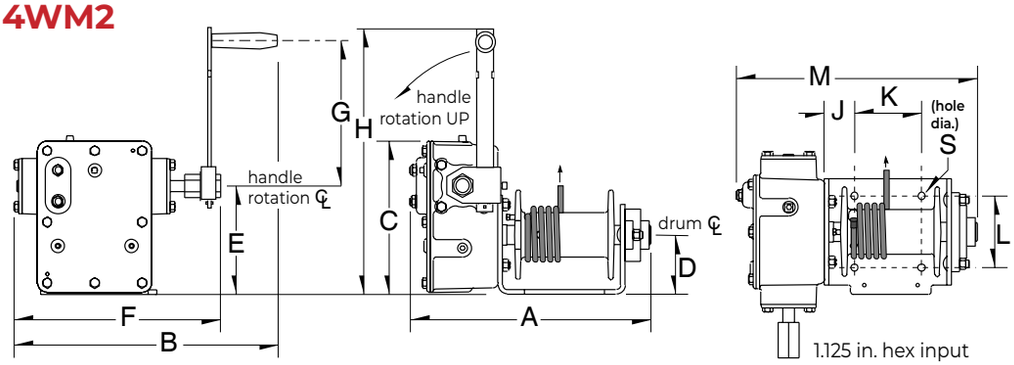
Configurations and Performance Characteristics—Up to 10,000 lbs

Model	Description	LOAD RATING						Wire Rope Dia.[1]		DRUM CAPACITY[1]						Single Gear Ratio	Double Gear Ratio	Force[2] to lift 1,000 lb		Approx. Ship Weight	
		1st Layer		Mid Drum		Full Drum				1st Layer		Mid Drum		Full Drum							
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)			(lb)	(kg)	(lb)	(kg)
M452	4,000 lb—marine duty (for pulling only)	4,000	1,814	3,300	1,496	2,500	1,133	1/4 5/16 3/8	6.4 7.9 9.5	23 18 14	7 5 4	130 89 64	39 27 19	300 200 140	91 60 42	4.42:1	19.54:1	10 (dbl gear)	4.5	83	38
M452B	4,000 lb—marine duty with brake (for lifting)	4,000	1,814	3,300	1,496	2,500	1,133	1/4 5/16 3/8	6.4 7.9 9.5	23 18 14	7 5 4	130 89 64	39 27 19	300 200 140	91 60 42	—	19.54:1	10 (dbl gear)	4.5	91	42
M452B-A	4,000 lb—marine duty with brake (for lifting) 4-inch drum width	4,000	1,814	3,300	1,496	2,500	1,133	1/4 5/16 3/8	6.4 7.9 9.5	13 9 7	3 2 2	83 56 40	25 17 12	190 120 89	57 36 27	—	19.54:1	10 (dbl gear)	4.5	83	38
M492	10,000 lb—marine duty (for pulling only)	10,000	4,535	7,400	3,356	5,400	2,449	5/16 3/8 1/2	7.9 9.5 12.7	27 21 15	8 6 4	240 170 100	73 51 30	540 390 230	164 118 70	5.00:1	25.00:1	8 (dbl gear)	3.6	166	76
M492B	10,000 lb—marine duty with brake (for lifting)	10,000	4,535	7,400	3,356	5,400	2,449	5/16 3/8 1/2	7.9 9.5 12.7	27 21 15	8 6 4	240 170 100	73 51 30	540 390 230	164 118 70	—	25.00:1	8 (dbl gear)	3.6	173	79
M492-12	10,000 lb—marine duty (for pulling only) 12-inch drum width	10,000	4,535	7,400	3,356	5,400	2,449	5/16 3/8 1/2	7.9 9.5 12.7	46 37 27	14 11 8	380 270 160	115 82 48	850 610 360	259 185 109	5.00:1	25.00:1	8 (dbl gear)	3.6	175	80
M492B-12	10,000 lb—marine duty with brake (for lifting) 12-inch drum width	10,000	4,535	7,400	3,356	5,400	2,449	5/16 3/8 1/2	7.9 9.5 12.7	46 37 27	14 11 8	380 270 160	115 82 48	850 610 360	259 185 109	—	25.00:1	8 (dbl gear)	3.6	190	87
MB451	Disc brake only for M452 (for lifting)																			13	6
MB491	Disc brake only for M492 and M492-12 (for lifting)																			15	7

Please contact Thern or nearest Thern Distributor for firm fixed price and delivery.
[1]Actual drum capacities may be 25-30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.
[2]Approximate handle force required to lift 1,000 lbs with an empty drum and maximum handle length.

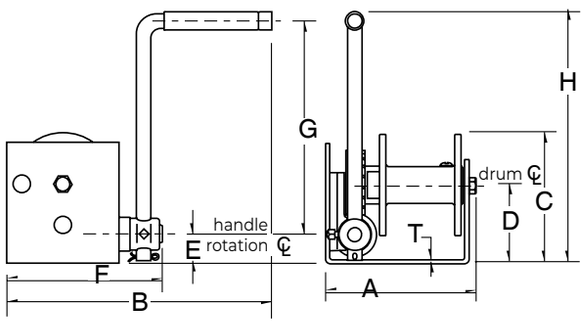
WORM GEAR SERIES
HAND WINCHES

Model 4WM2

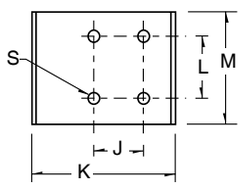


Install wire rope correctly as shown, or brake will not operate properly.

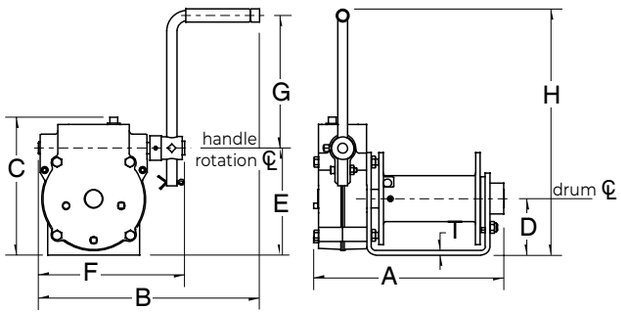
Model 465



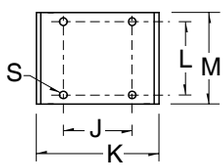
Base Model 465

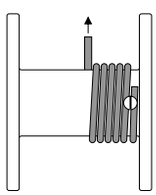


Models 462 and 472

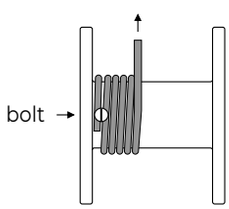


Base Models 462 and 472

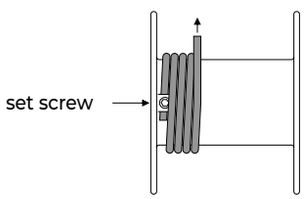




Wire Rope Installation
Model 465

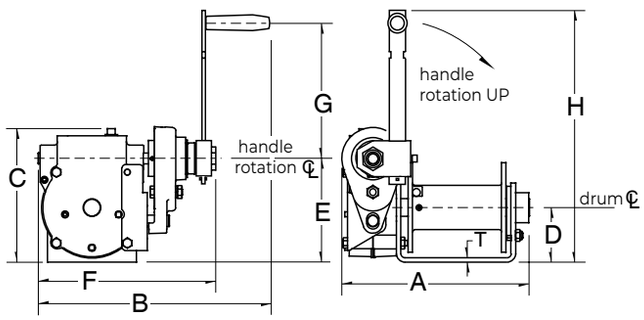


Wire Rope Installation
Models 462 and 4622PB

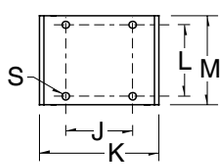


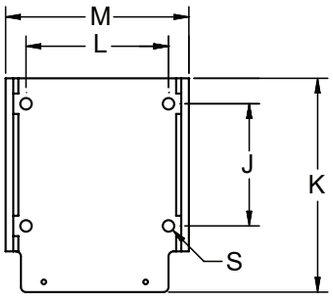
Wire Rope Installation
Model 472

Model 4622PB



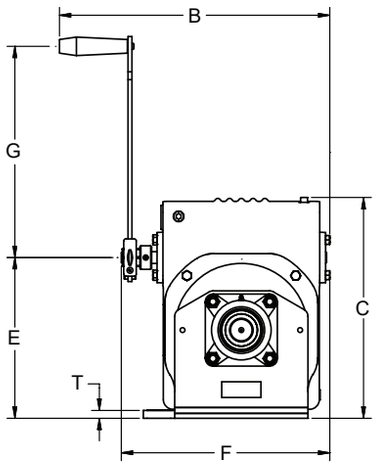
Base Model 4622PB

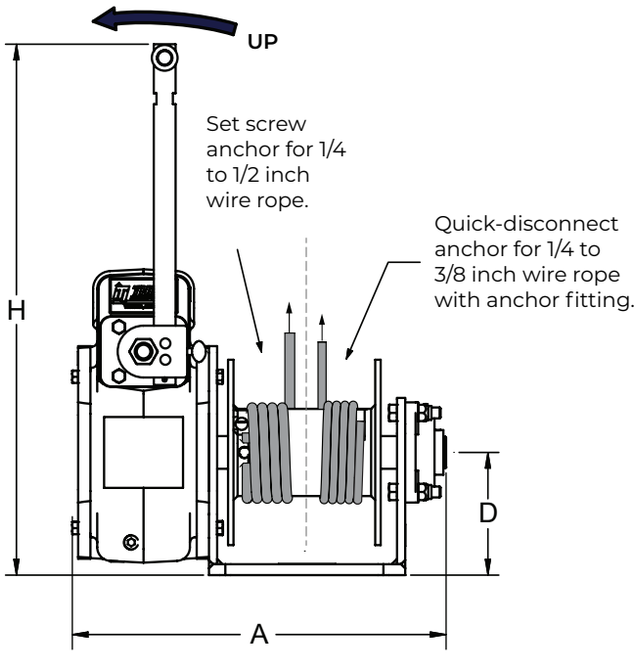




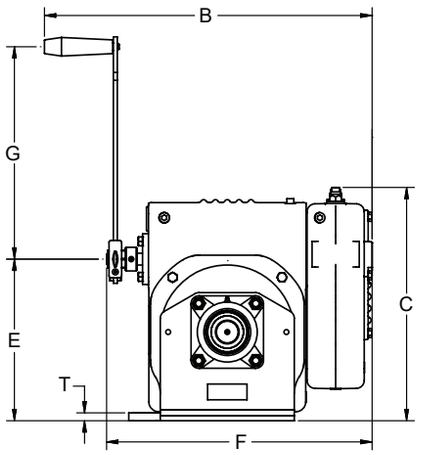
Install wire rope correctly as shown, or brake will not operate properly. Underwound: set screw or quick-disconnect anchors

Models 2W40-L and 2W40-M





Models 2W40-BM and 2W40-BL



Worm Gear Hand Winches—Dimensions

Model	465		462		4622PB		472		4WM2	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
Drum Diameter	1.50	38.1	1.50	38.1	1.50	38.1	2.50	63.5	2.50	63.5
Flange Diameter	4.00	101.6	4.06	103.1	4.06	103.1	5.00	127	5.00	127
Drum Width	2.81	71.3	2.81	71.3	2.81	71.3	5.00	127	5.00	127
A	6.50	165.1	7.75	196.8	7.50	190.5	10.12	257.0	13.50	342.9
B	10.50	266.7	10.25	260.3	11.81	299.9	12.00	304.8	15.56	395.2
C	5.44	138.1	5.63	143.0	5.62	142.7	7.12	180.8	8.56	217.4
D	3.40	86.3	2.38	60.4	2.40	60.9	3.06	77.7	3.31	84.0
E	1.40	35.5	4.38	111.2	4.38	111.2	5.81	147.5	6.04	153.4
F	6.38	162.0	5.88	149.3	7.60	193.0	7.94	201.6	11.56	293.6
G	8.75	222.2	9.00	228.6	10.59	268.9	7.25	184.1	10.59	268.9
H	10.59	268.9	13.38	339.8	15.59	395.9	13.38	339.8	17.30	439.4
J	2.00	50.8	2.00	50.8	2.00	50.8	3.75	95.2	1.75	44.4
K	5.75	146.0	4.44	112.7	4.44	112.7	6.69	169.9	3.75	95.2
L	2.50	63.5	2.50	63.5	2.50	63.5	4.00	101.6	4.00	101.6
M	4.50	114.3	3.50	88.90	3.50	88.90	5.00	127	13.50	342.9
S (hole diameter)	.40	10.1	.40	10.1	.40	10.1	.40	10.1	.41	10.4
T	.19	4.8	.19	4.8	.19	4.8	.25	6.3	—	—

Dimensions are for reference only and subject to change without notice.

Worm Gear Hand Winches—Configurations and Performance Charac teristics

Model	Description	Load Rating						Wire Rope Dia.[1]		Drum Capacity[1]					
		1st Layer		Mid Drum		Full Drum				1st Layer		Mid Drum		Full Drum	
		(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)
465	750 lb—open gears (recommended for pulling only	750	340	600	272	400	181	1/8 3/16	3.2 4.8	7 4	2 1	58 27	17 8	130 59	39 17
462	1,000 lb—enclosed gearing (recommended for pulling only)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	7 4	2 1	61 28	18 8	140 61	42 18
4622PB	1,000 lb—enclosed gearing with brake (for lifting)	1,000	453	700	317	500	226	1/8 3/16	3.2 4.8	7 4	2 1	61 28	18 8	140 61	42 18
472	2,000 lb—enclosed gearing (recommended for pulling only)	2,000	907	1,700	771	1,300	589	3/16 1/4 5/16	4.8 6.4 7.9	15 11 8	4 3 0	65 35 23	19 10 7	140 77 52	42 23 15
4WM2	2,000 lb—enclosed gearing with brake (for lifting) **Drill Driveable***	2,000	907	1,500	680	1,200	544	1/4 3/16	6.4 *(not recommended for this winch)*	11	3	35	10	77	23
2W40-L	4,000 lb—enclosed gearing (recommended for pulling only	4,000	1,814	2,800	1,270	2,200	997	5/16 3/8	7.9 9.5	18 14	5 4	91 65	27 19	200 140	60 42
2W40-BL	4,000 lb—enclosed gearing with brake (for lifting)	4,000	1,814	2,800	1,270	2,200	997	5/16 3/8	7.9 9.5	18 14	5 4	91 65	27 19	200 140	60 42
2W40-M	4,600 lb—enclosed gearing (recommended for pulling only) **Drill Driveable***	4,600	2,086	3,300	1,496	2,500	1,133	5/16 3/8	7.9 9.5	18 14	5 4	91 65	27 19	200 140	60 42
2W40-BM	4,600 lb—enclosed gearing with brake (for lifting) **Drill Driveable***	4,600	2,086	3,300	1,496	2,500	1,133	5/16 3/8	7.9 9.5	18 14	5 4	91 65	27 19	200 140	60 42

Please contact Thern or nearest Thern Distributor for firm fixed price and delivery.
[1] Actual drum capacities may be 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.
[2] Approximate handle force required to lift 1,000 lb with an empty drum and maximum handle length

2W40 Series Worm Gear Hand Winches—Dimensions

Model	A	B	C	D	E	F	G	H	J	K	L	M	S (hole dia.)	T	Flange Dia.	Drum Width	Drum Dia.
	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
2W40-L	17.25	19.75	14.25	5.63	10.25	14.5	18.5	29.25	6	10.5	7	9	9/16	.5	8.5	6.5	4
2W40-M	17.25	17.25	14.25	5.63	10.25	13.5	13.5	24.50	6	10.5	7	9	9/16	.5	8.5	6.5	4
2W40-BL	17.25	23.5	15	5.63	10.25	18.25	18.5	29.25	6	10.5	7	9	9/16	.5	8.5	6.5	4
2W40-BM	17.25	21	15	5.63	10.25	17	13.5	24.50	6	10.5	7	9	9/16	.5	8.5	6.5	4

Dimensions are for reference only and subject to change without notice.

Gear Ratio	Force[2] to lift 1,000 lb		Approx. Ship Weight	
	(lb)	(kg)	(lb)	(kg)
20:1	21	9.5	12	5
15:1	34	15.4	15	7
15:1	26	11.8	21	10
24:1	24	10.9	32	15
32:1	14	6.4	41	19
26:1	18	8.2	126	58
			145	66
31:1	11	5.0	123	56
			141	64

Drill Drive Performance Characteristics

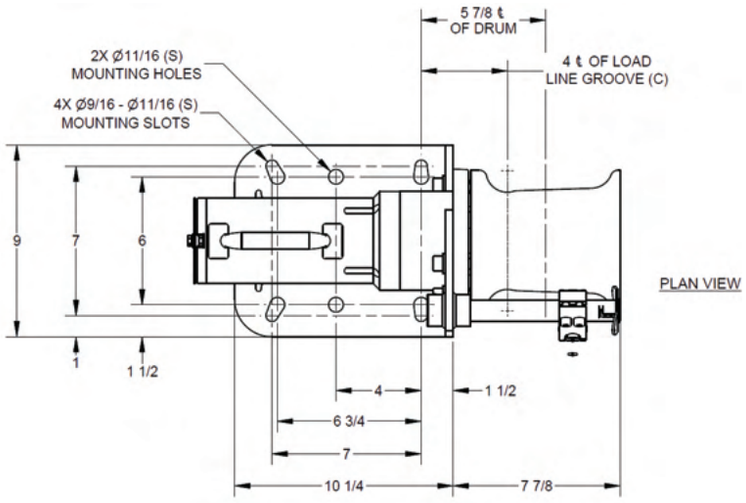
	Winch Model	Wire Rope Diameter	Load (lbs)	Distance (ft)	Lift Time (minutes)
ED330-DW11 and ED300-DW06	4WM2	1/4”	500 1,000 1,500	135* 75 45	15 10 7
	2W40	5/16”	500 1,000 1,800	200 100 50	15 9 5
ED400-DW09	4WM2	1/4”	800 1,200 1,500	200* 90 45	15 9 5
	2W40	5/16”	1,000 2,000 2,500	200 100 50	12 7 4

*Long lift model

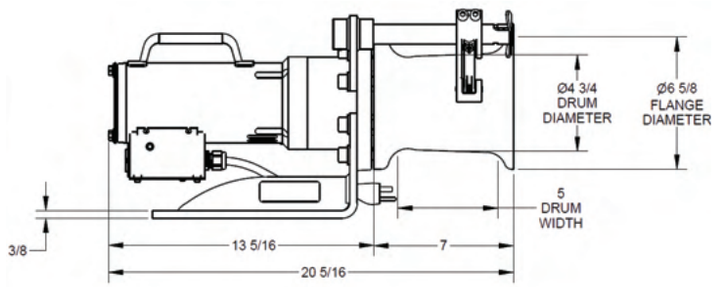
LIBERTY® SERIES

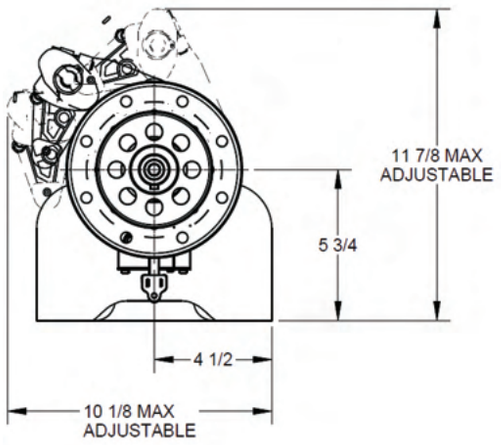
PORTABLE CAPSTAN WINCHES

Model 3CP1M-AFS*



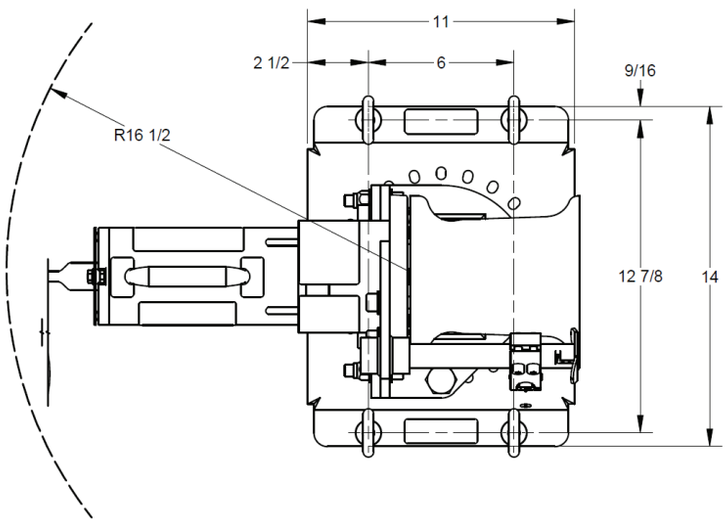
PLAN VIEW



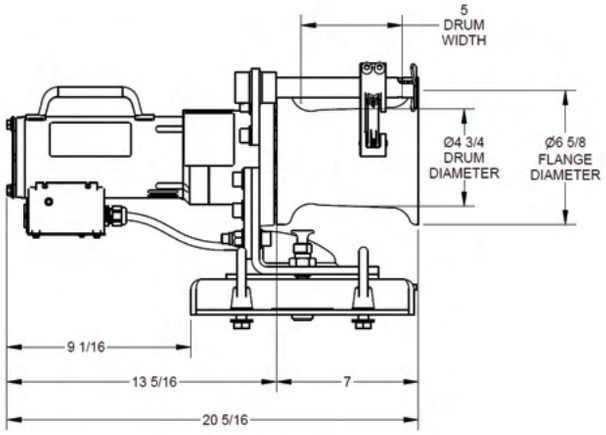


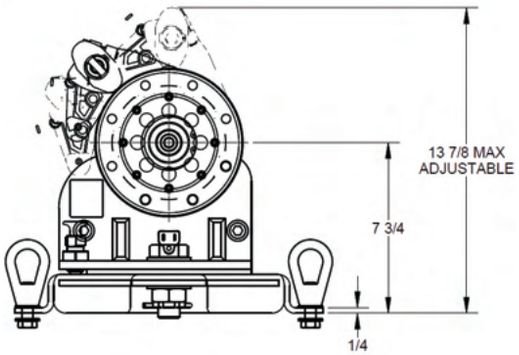
RIGHT SIDE VIEW

Model 3CP1S-AFS*

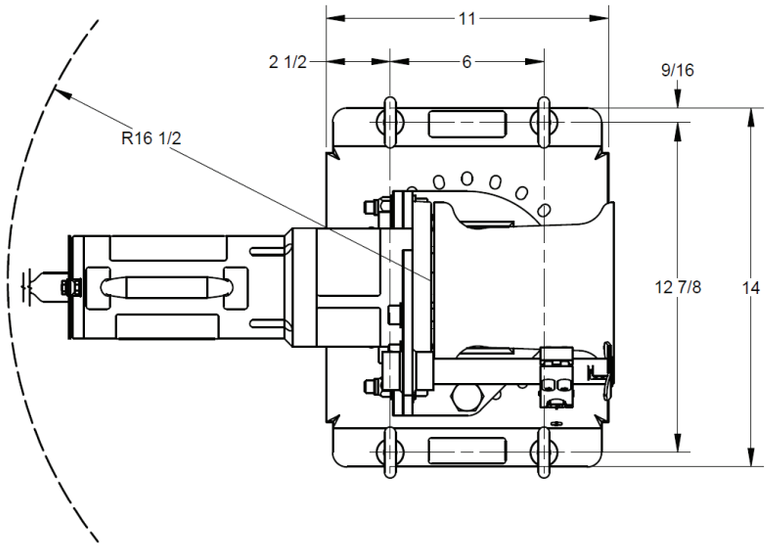


PLAN VIEW

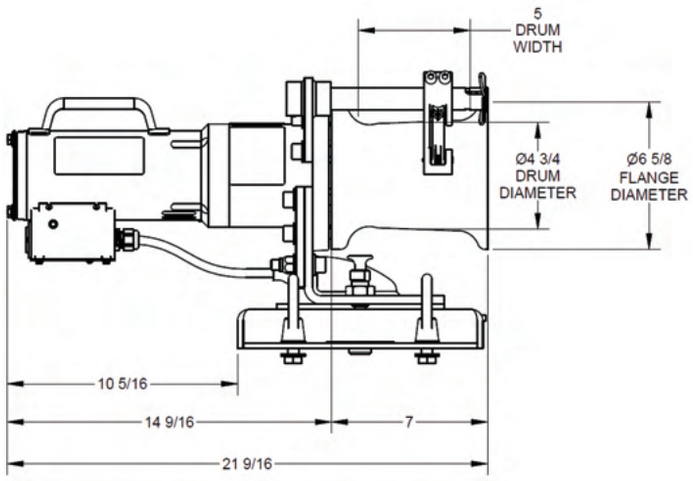




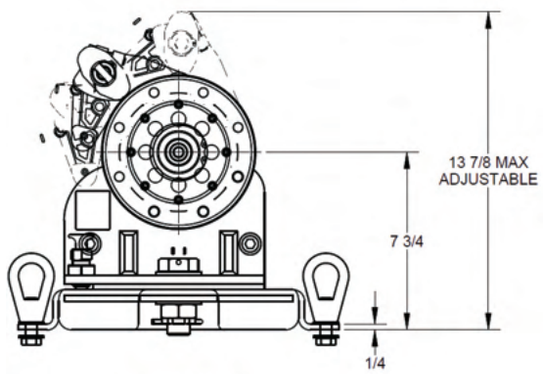
Model 3CP2S-AFS*



PLAN VIEW



FRONT VIEW



RIGHT SIDE VIEW

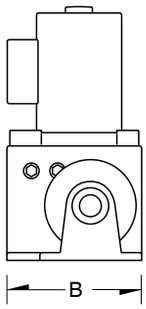
**Dimensions given in inches*

DURA-HOIST SERIES

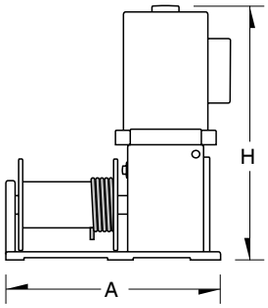
PORTABLE ELECTRIC WINCHES

Model 4771

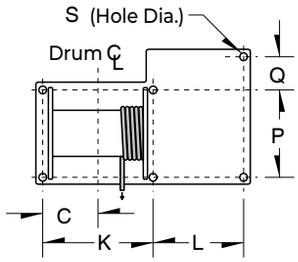
Side View

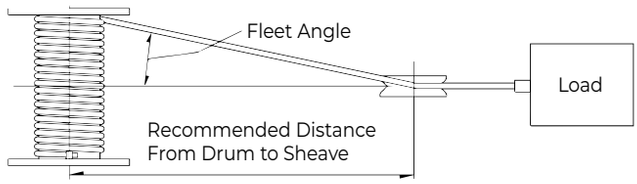


Front View



Top View





Install wire rope correctly as shown, or brake will not operate properly.

Series 477 Configurations and Performance Characteristics

Model Number	Motor Description	Motor HP	Load Rating			Wire Rope Dia.	Line Speed		Drum Capacity[1]			Approx. Ship Weight
			1st Layer	Mid Drum	Full Drum		1st Layer	Full Drum	1st Layer	Mid Drum	Full Drum	
			(lb)	(lb)	(lb)	(in)	(fpm)	(fpm)	(ft)	(ft)	(ft)	(lb)
4771[2]	115/1/60 VAC—6 ft pendant	1.3	2,000	1,500	1,200	5/16	13	22	13	40	90	88
4771AC-1PH	115/1/60 VAC—less controls	1.3	2,000	1,500	1,200	5/16	13	22	13	40	90	87
4771AC-1PH2[3]	115/230/1/60 VAC—less controls	1.5	2,000	1,500	1,200	5/16	13	22	13	40	90	115
4771AC-3PH[3]	230/460/3/60 VAC—less controls	1.5	2,000	1,500	1,200	5/16	13	22	13	40	90	111
4771DC[4]	12 VDC—10 ft pendant	1.0	2,000	1,500	1,200	5/16	13	22	13	40	90	105
4771PN[4,5]	Pneumatic—less controls	1.2	2,000	1,500	1,200	5/16	13	22	13	40	90	70
4771HY[4,5]	Hydraulic—less controls	2.3	2,000	1,500	1,200	5/16	13	22	13	40	90	72
4777[2]	115/1/60 VAC—6 ft pendant	1.3	2,000	1,500	1,200	5/16	13	22	7	27	60	93
4777DC[4,6]	12 VDC—10 ft pendant	1.0	2,000	1,500	1,200	5/16	13	22	7	27	60	105

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.
[1] Actual drum capacities may be 25–30% less due to nonuniform winding. Tension in wire rope will also affect drum capacity.
[2] Motor includes an 8-ft power cord with grounded plug and a push button pendant control on 6-ft cord.
[3] For models 4771AC-1PH2 and 4471AC-3PH, please specify voltage when ordering.
[4] For pneumatic, hydraulic, and DC models, line speed is based on rated load. Actual line speed varies with load weight and power supply.
[5] For Model 4771PN, ratings are for 80 cfm at 100 psi. For Model 4771HY, ratings are for 4 gpm at 1000, psi.
[6] Controls are separate.

Series 477 Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10L2A1[6]	NEMA 1 control switch—mounted and wired	3	2
10L2A4[6]	NEMA 4 watertight control switch—mounted and wired	7	4
A227877	Control assembly 477 PN pneumatic pendant	15	7
A230767	Control assembly 477 PN pneumatic pendant with E-Stop and F/R-L	43	20
477PN-CNTRL	Pneumatic control valve—not mounted or plumbed, no hoses	6	3
477PN-HS6	6-ft hoses for pneumatic controls—not plumbed	4	2
477HY-CNTRL	Hydraulic control valve—not mounted or plumbed, no hoses	5	3
477HY-HS6	6-ft hoses for hydraulic controls—not plumbed	4	2

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.
[6] Controls for 115 volt, single phase, 60 cycle include an 8-ft power cord with grounded plug (drum control switches are not available for this model).
[7] Length of pendant to be specified at time of order. 30 ft maximum length.

Series 477 Winch Dimensions

Model	A		B		C		H		K		L		P		Q		S (Hole Dia.)	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4771	14.38	365.25	8.86	225.04	3.55	90.17	17.45	443.23	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771AC-1PH	14.38	365.25	8.86	225.04	3.55	90.17	22.00	558.8	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771AC-1PH2	14.38	365.25	8.86	225.04	3.55	90.17	21.00	533.4	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771AC-3PH	14.38	365.25	8.86	225.04	3.55	90.17	19.00	482.6	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771DC	14.38	365.25	8.86	225.04	3.55	90.17	18.69	474.72	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771PN	14.38	365.25	8.86	225.04	3.55	90.17	14.94	379.47	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4771HY	14.38	365.25	8.86	225.04	3.55	90.17	11.84	300.73	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4777	14.38	365.25	8.86	225.04	3.49	90.17	17.45	443.23	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63
4777DC	14.38	365.25	8.86	225.04	3.49	90.17	18.69	474.72	6.75	171.45	6.31	160.27	5.70	144.78	2.16	54.86	.34	8.63

Dimensions are for reference only and subject to change without notice.

Series 477 Drum Dimensions

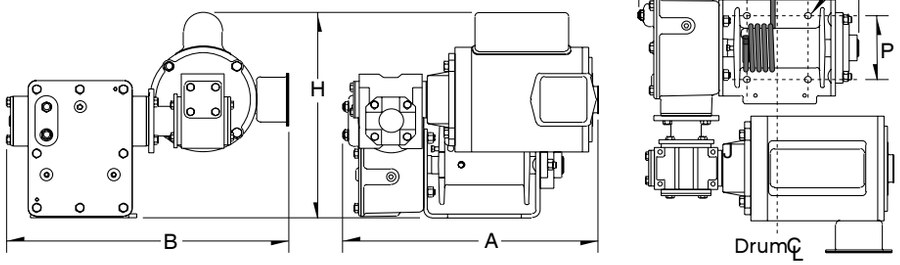
Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle[1] Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4771	3.00	76.2	6.00	152.4	6.00	152.4	10	3.04
4771AC-1PH	300	76.2	6.00	152.4	6.00	152.4	10	3.04
4771AC-1PH2	300	76.2	6.00	152.4	6.00	152.4	10	3.04
4771AC-3PH	300	76.2	6.00	152.4	6.00	152.4	10	3.04
4771DC	300	76.2	6.00	152.4	6.00	152.4	10	3.04
4771P N	300	76.2	6.00	152.4	4.00	152.4	10	3.04
4771HY	300	76.2	6.00	152.4	4.00	152.4	10	3.04
4777	300	76.2	6.00	152.4	4.00	101.6	7	2.13
4777DC	3.00	76.2	6.00	152.4	4.00	101.6	7	2.13

Dimensions are for reference only and subject to change without notice.
[1]Recommended minimum distance between drum and lead sheave for smooth drum.

ATLAS SERIES
PORTABLE ELECTRIC WINCHES

Series 4WP2

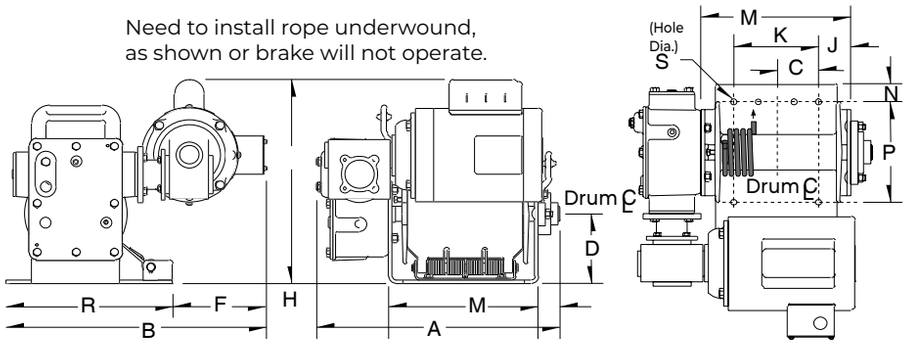
Install wire rope correctly as shown,
or brake will not operate properly.



Side View | Rear View | Top View

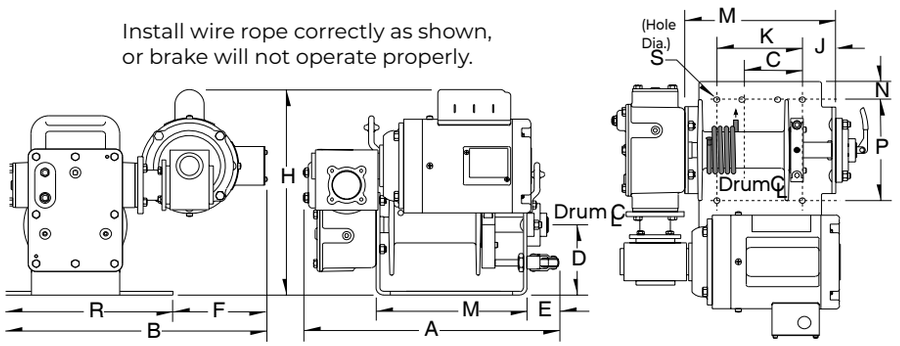
Series 4WP2T8

Need to install rope underwound,
as shown or brake will not operate.



Series 4WP2TC Clutch Models

Install wire rope correctly as shown,
or brake will not operate properly.



Series 4WP2 and 4WP2T Performance Characteristics

Model Number	Motor Description	Motor HP	Load Rating			Wire Rope Dia.[1]	Line Speed		Drum Capacity[2]			Approx. Ship Weight
			1st Layer	Mid Drum	Full Drum		1st Layer	Full Drum	1st Layer	Mid Drum	Full Drum	
			(lb)	(lb)	(lb)	(in)	(fpm)	(fpm)	(ft)	(ft)	(ft)	(lb)
4WP2[3]	Includes controls	1.3	2,000	1,500	1,200	1/4	8	13	11	35	77	85
4WP2T8-2000-8[4]	Includes controls	1.3	2,000	1,200	800	1/4	8	19	19	130	280	101
	ATLAS winch—8" drum—for pulling orlifting					5/16	8	19	15	85	190	
4WP2TC-2000-8[4]	Includes controls	1.3	2,000	1,200	800	1/4	8	19	12	87	190	106
	Clutch m odel—5.5" drum —for horizontal pulling only											

[1] Minimum wire rope diameter is 1/4 inch.
[2] Actual drum capacities may be 25–30% less due to nonuniform winding. Tension in wire rope will also affect drum capacity.
[3] Model 4WP2: 115 VAC motor includes 8-foot power cord with grounded plug and NEMA4 push button pendant control on 6-foot cord.
[4] Models 4WP2T8 and 4WP2TC: 115 VAC motor includes 16-foot power cord with grounded plug and push button pendant control on 16-foot cord.
[5] Controls are sold separately for all non-standard electric motors (A,B,D, and E). See table below.
[6] For PN models, ratings are for 80 cfm at 100 psi.
Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Control Options and Accessories

Model	Description	Approx. Ship Wt.
10L2A1[7]	NEMA 1 control switch—mounted and wired	3 lb
10L2A4[7]	NEMA 4 water tight control switch—mounted and wired	7 lb
TPL-4WP2T8	Two-part line kit—not available for 4WP2 Series	4 lb

[7] Controls for 115 volt, single phase, 60 cycle include 8-foot power cord with grounded plug. (drum control switches are not available for this model)
Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Motor Options

Standard motor is 115/1/60 VAC TENV. For other configurations, add motor code to model number when ordering. EX: 4WP2T8-2000-8-PN (pneumatic winch)

A[5]	115 volt, 1 phase, 60 Hz—no controls or power cord—TENV
B[5]	230 volt, 1 phase, 60 Hz—no controls or power cord—TEFC
D[5]	230 volt, 3 phase, 60 Hz—no controls or power cord—TEFC
E[5]	460 volt, 3 phase, 60 Hz—no controls or power cord—TEFC
F	All other voltages or hertz
PN[6]	8-vane air motor with local lever control or remote pendant. Standard is local lever control mounted.
DC	12 volt DC with 10-foot pendant control

Series 4WP2 and 4WP2T Dimensions

Model	A[1]	B[1]	C	D	E	F	H[1]	J	K	M	N	P	R	S (Hole Dia.)
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
4WP2	15.63 (397.01)	17.28 (438.92)	1.72 (43.69)	—	—	—	12.84 (326.14)	1.72 (43.69)	3.75 (95.25)	13.50 (342.9)	—	4.00 (101.6)	—	.41 (10.42)
4WP2T8-2000-8	16.62 (422.15)	17.80 (452.12)	2.75 (69.85)	4.88 (123.96)	1.44 (36.58)	6.43 (163.33)	14.25 (361.95)	2.25 (57.15)	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.38 (289.06)	.41 (10.42)
4WP2TC-2000-8	17.34 (440.44)	17.80 (452.12)	4.02 (102.1)	4.88 (123.96)	2.16 (54.87)	6.43 (163.33)	14.25 (361.95)	2.25 (57.15)	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.38 (289.06)	.41 (10.42)

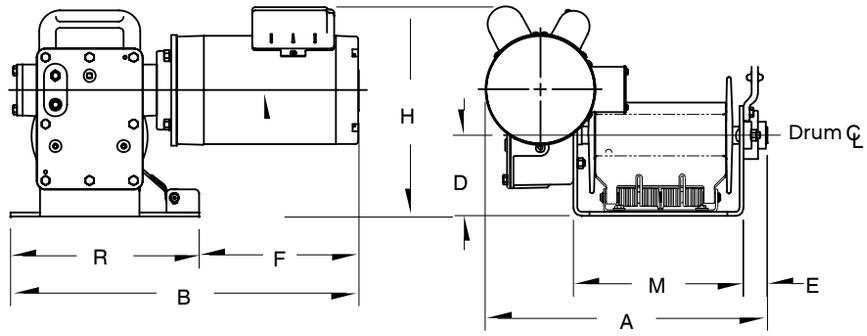
Dimensions are for reference only and subject to change without notice.
[1] Dimensions A, B, and H may vary with motor selection.

Series 4WP2 and 4WP2T Drum Dimensions

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance[2]	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4WP2	2.50	63.5	5.00	127	5.00	127	8	2.4
4WP2T8-2000-8	2.50	63.5	7.00	177.8	8.00	203.2	13	4.0
4WP2TC-2000-8	2.50	63.5	7.00	177.8	5.50	139.7	9	2.7

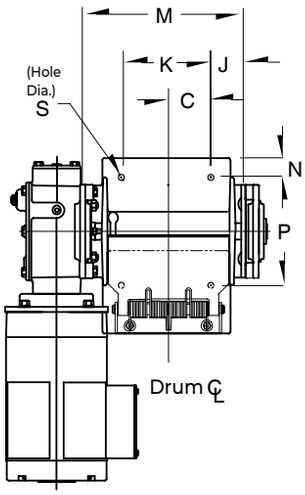
Dimensions are for reference only and subject to change without notice.
[2] Recommended minimum distance between drum and lead sheave for smooth drum.

Series 4WP2D8

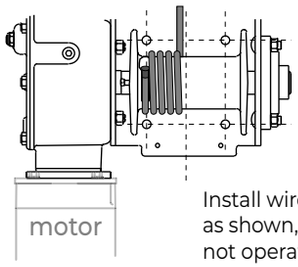


Side View

Rear View

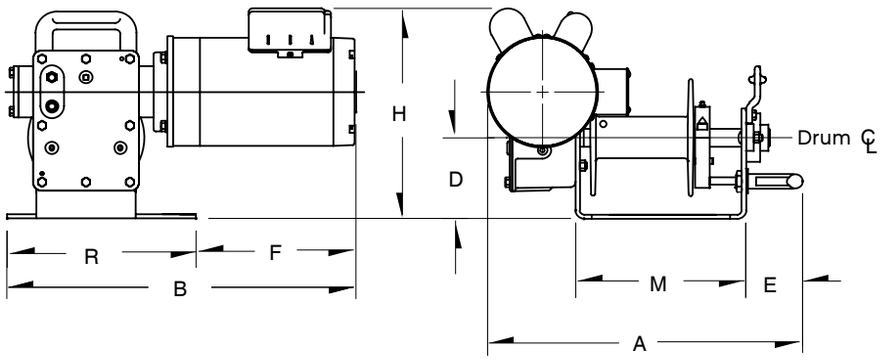


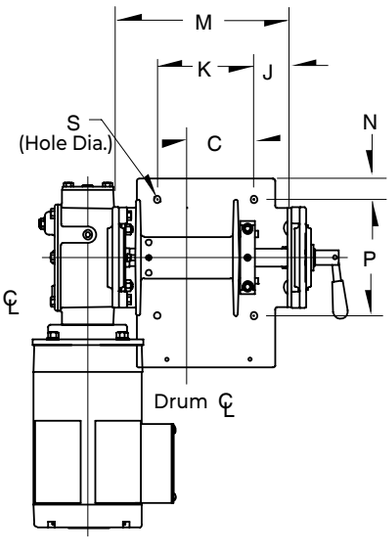
Top View

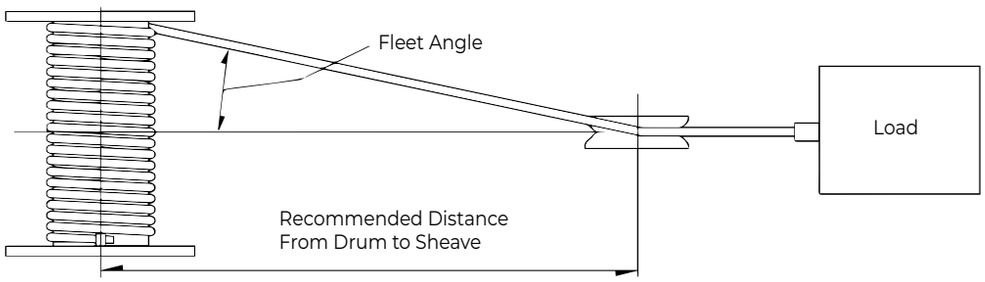


Install wire rope correcty as shown, or brake will not operate properly.

Series 4WP2DC







Series 4WP2 and 4WP2T Performance Characteristics

Model	Model Number Extensions						Load Rating						Wire Rope Dia.[1]		Line Speed				Drum Capacity[2]						Approx. Ship Weight[3]	
	Load Rating		Line Speed		Motor Codes	Motor	1st Layer		Mid Drum		Full Drum				1st Layer		Full Drum		1st Layer		Mid Drum		Full Drum			
	(lb)	(kg)	(fpm)	(mpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(in)	(mm)	(fpm)	(mpm)	(fpm)	(mpm)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(lb)	(kg)
High-Speed Atlas winches for lifting or pulling																										
4WP2D8	800	362	26	7.9	A,B,D,E	1	800	362	460	208	330	149	1/4	6.4	26	7	65	19	19	5	130	39	280	85	100	46
4WP2D8	800	362	40	12.1	D,E	1.5	800	362	460	208	330	149	1/4	6.4	40	12	97	29	19	5	130	39	280	85	100	46
4WP2D8	1,500	680	26	7.9	D,E	2	1,500	680	900	408	600	272	1/4	6.4	26	7	65	19	19	5	130	39	280	85	100	46
4WP2D8	1,500	680	40	12.1	B,D,E	3	1,500	680	900	408	600	272	1/4	6.4	40	12	97	29	19	5	130	39	280	85	100	46
High-Speed Clutch Model for horizontal pullling only																										
4WP2DC	800	362	26	7.9	A,B,D,E	1	800	362	460	208	330	149	1/4	6.4	26	7	65	19	12	3	87	26	190	57	100	46
4WP2DC	800	362	40	12.1	D,E	1.5	800	362	460	208	330	149	1/4	6.4	40	12	97	29	12	3	87	26	190	57	100	46
4WP2DC	1,500	680	26	7.9	D,E	2	1,500	680	900	408	600	272	1/4	6.4	26	7	65	19	12	3	87	26	190	57	100	46
4WP2DC	1,500	680	40	12.1	B,D,E	3	1,500	680	900	408	600	272	1/4	6.4	40	12	97	29	12	3	87	26	190	57	100	46

When ordering, please indicate model number and extensions. Examples: 4WP2D8-800-26-A (without clutch); 4WP2DC-800-40-A (with clutch).
Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.
[1] Minimum wire rope diameter is 1/4 inch.
[2] Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.
[3] Weight may vary with motor.

Control Options and Accessories

Model	Description	115/1/60[4]	230/1/60	230/3/60	460/3/60
10L2A1	NEMA 1	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp
10L7E1	NEMA 1	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp
10L2A4	NEMA 4—watertight	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp
10L7E4	NEMA 4—watertight	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp
10P1A46	6-foot pendant control	to 1 hp	—	—	—
TPL-4WP2T8	Two-part line kit				

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.
[4] Controls for 115V, single-phase motors up to 1 hp, include an 8-foot power cord with grounded plug (drum control switches are not available for this model).

Motor Codes		
A	115 volt	1 phase
B	230 volt	1 phase
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern	
PN	Please contact Thern	

Series 4WP2 and 4WP2T Dimensions

Model	A[1]	B[1]	C	D	E	F	H[1]	J	K	M	N	P	R	S (Hole Dia.)
	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
4WP2D8	17.50 (444.5)	21.00 (533.4)	2.75 (69.85)	5.00 (127)	1.50 (38.1)	9.50 (241.3)	12.75 (323.85)	2.25 57.15	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.50 (292.1)	.41 (10.42)
4WP2DC	19.00 (482.6)	21.00 (533.4)	4.00 (101.6)	4.88 (123.96)	3.50 (88.9)	9.50 (241.3)	12.75 (323.85)	2.25 (57.15)	5.81 (147.58)	10.25 (260.35)	1.25 (31.75)	7.00 (177.8)	11.50 (292.1)	.41 (10.42)

Dimensions are for reference only and subject to change without notice.
[1] Dimensions A, B, and H may vary with motor selection.

Series 4WP2 and 4WP2T Drum Dimensions

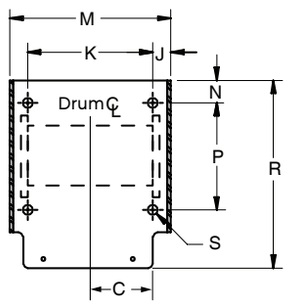
Model	Drum Diameter		F lange Diameter		Drum Width		Fleet Angle Distance[2]	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4WPD8	2.50	63.5	7.00	177.8	8.00	203.2	13.00	4.0
4WPDC	2.50	63.5	7.00	177.8	5.50	139.7	9.00	2.75

Dimensions are for reference only and subject to change without notice.
[2] Recommended minimum distance between drum and lead sheave for smooth drum.

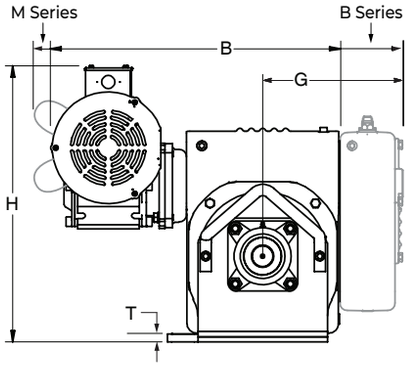
ATLAS II SERIES

PORTABLE ELECTRIC WINCHES

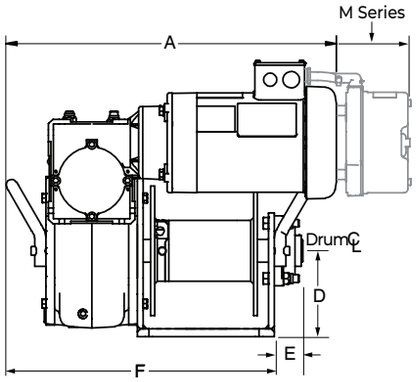
Mounting - Top View



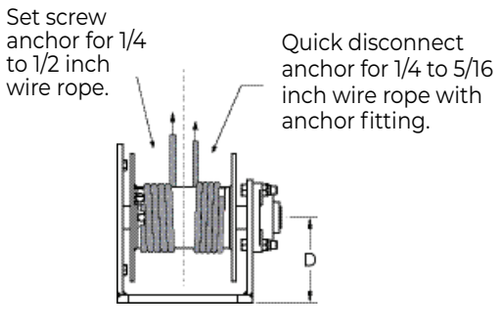
Side View



Back View



Cable Install



3WG4 Series Winch Dimensions

Model	Approx. Ship Wt.		A[1]		B[1]		C		D		E		F		G		H[1]		J	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
3WG4-B3500-9S6	240	108	22.5	571	24.5	622	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18.5	469	1	25
3WG4-B3500-13S6	245	111	23.5	596	24.5	622	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18.5	469	1	25
3WG4-B4000-9S6	235	106	23	584	24.5	622	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18	457	1	25
3WG4-B4600-9S6	245	111	23.5	596	24.5	622	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18.5	469	1	25
3WG4-B4600-13S6	245	111	22	558	23.5	596	3.63	92	5.63	143	1.88	47	17.75	450	9.5	241	18.5	469	1	25
3WG4-M3500-9S6	225	102	26.5	673	19.5	495	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18	457	1	25
3WG4-M3500-13S6	235	106	28	711	21	533	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18.5	469	1	25
3WG4-M4000-9S6	235	106	28	711	20.5	520	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18	457	1	25
3WG4-M4600-9S6	235	106	28	711	21	533	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18.5	469	1	25
3WG4-M4600-13S6	235	106	27.5	698	19.5	495	3.63	92	5.63	143	1.88	47	17.75	450	5.75	146	18.5	469	1	25

[1]Dimensions A, B, and H may vary with motor selection. Dimensions are for reference only and subject to change without notice.

3WG4 Series Performance Characteristics

Model	Brake Style	Duty Rating[2]	Motor Codes	Motor	Load Rating						Line Speed				Approx. Ship. Wt.[3]	
					1st Layer		Mid Drum		Mid Drum		1st Layer		Full Drum			
		(mins)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)	(lb)	(kg)
3WG4-B3500-9S6	Infernal	15	B,C,D,E	1.5	3,500	1,587	2,500	1,134	1,900	861	9	2.7	16	4.9	186	85
3WG4-B3500-13S6	Infernal	15	B,C,D,E	2	3,500	1,587	2,500	1,134	1,900	861	13	4.0	24	7.3	191	87
3WG4-B4000-9S6	Internal	15	A	1.5	4,000	1,814	2,800	1,270	2,200	997	9	2.7	16	4.9	181	83
3WG4-B4600-9S6	Internal	15	B,C,D,E	2	4,600	2,086	3,300	1,496	2,500	1,134	9	2.7	16	4.9	191	87
3WG4-B4600-13S6	Internal	15	C,D,E	3	4,600	2,086	3,300	1,496	2,500	1,134	13	4.0	24	7.3	190	87
3WG4-M3500-9S6	Motor	60	D,E	1.5	3,500	1,587	2,500	1,134	1,900	861	9	2.7	16	4.9	171	78
3WG4-M3500-13S6	Motor	60	B,D,E	2	3,500	1,587	2,500	1,134	1,900	861	13	4.0	24	7.3	182	83
3WG4-M4000-9S6	Motor	60	A	1.5	4,000	1,814	2,800	1,270	2,200	997	9	2.7	16	4.9	181	83
3WG4-M4600-9S6	Motor	60	B,D,E	2	4,600	2,086	3,300	1,496	2,500	1,134	9	2.7	16	4.9	182	83
3WG4-M4600-13S6	Motor	60	D,E	3	4,600	2,086	3,300	1,496	2,500	1,134	13	4.0	24	7.3	181	83

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.
[2] Duty rating represents maximum operating time at full load. Rating includes lifting and lowering. Allow components to cool between cycles.
[3] Weight may vary with motor selection.

Control Options and Accessories

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
[10]S[3]D[4]	Electric motor controls 230/3/60 to 3hp	25	12

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

NOTES:

For more information and other control options, please see pages 94-96. (the page number will need to be updated)

Custom controls are available including wireless remote control, variable speed control, electronic overload, and enclosures for special environments.

Motor Codes		
A	115 volt	1 phase
B	230 volt	1 phase
C	208 volt	3 phase
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

3WG4 Series Drum Capacities[4]

Model	Wire Rope Diameter		Drum Layer					
			1st Layer		Mid Drum		Full Drum	
	(in)	(mm)	(ft)	(m)	(ft)	(m)	(ft)	(m)
3WG4-B/M	5/16	1.9	18	5.4	91	27.7	200	60.9
3WG4-B/M	3/8	9.5	14	4.2	65	19.8	140	42.6

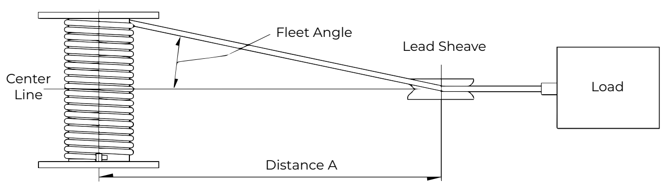
[4]Actual drum capacities may be 25–30% less due to nonuniform winding. Tension in wire rope will also affect drum capaci ty.

3WG4 Series Drum Dimensions

Model	Drum Dia.		Flange Dia.		Drum Width		Fleet Angle Distance[5]	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
3WG4-M	4.00	102	8.50	216	6.50	166	10.5	3.2

Dimensions are for reference only and subject to change without notice.
[5]Recommended minimum distance between drum and lead sheave for smooth drum.

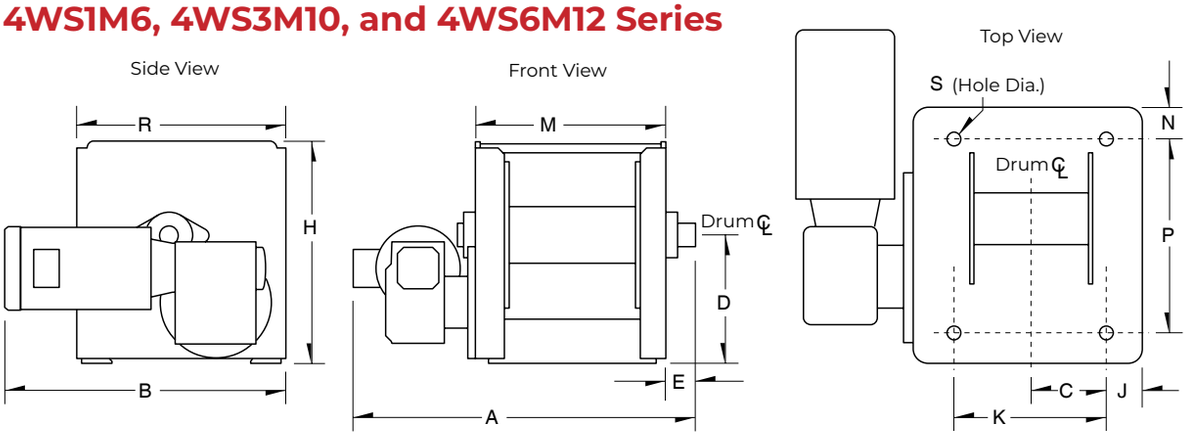
K		M		N		P		R		S		T	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12
7	177	9	228	1.25	31	6	152	10.5	266	9/16	14	0.5	12



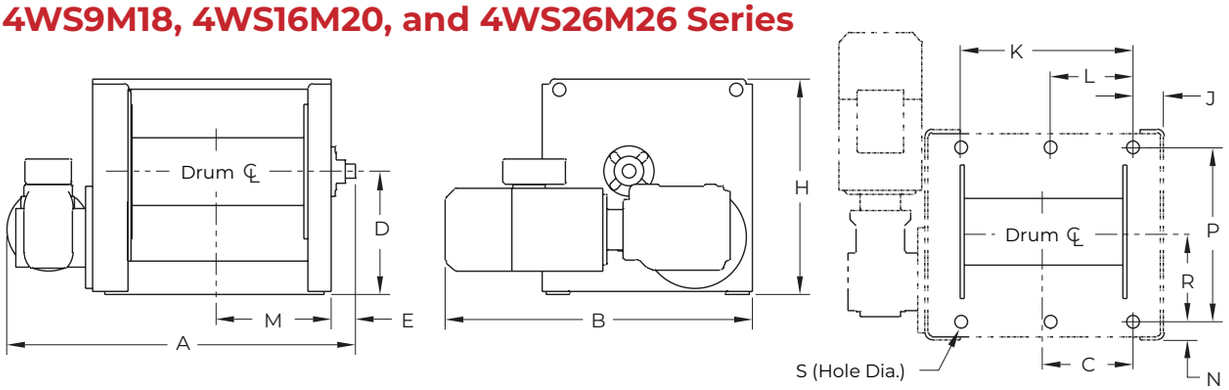
4WS SERIES

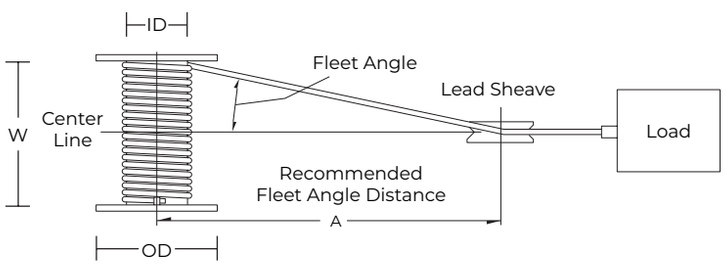
HEAVY-DUTY ELECTRIC POWER WINCHES

4WS1M6, 4WS3M10, and 4WS6M12 Series



4WS9M18, 4WS16M20, and 4WS26M26 Series





4WS Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A)[1]	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4WS1M6	2.88	73.16	7	177.8	6	152.4	10	3.05
4WS3M10	4.5	114.3	11.5	292.1	10	254	16	4.88
4WS6M12	5.5	139.7	14	355.6	12	304.8	20	6.1
4WS9M18	9	229	20	508	18	457	29	8.8
4WS16M20	10.75	273	24	610	20	508	32	9.8
4WS26M26	14	356	28	711	26	660	42	12.8

[1] Recommended minimum distance between drum and lead sheave for smooth drum.

Dimensions are for reference only and subject to change without notice.
Please contact Thern for exact dimensions.

Electric Drum Control Switches

Model	Description	115/1/60[2]	230/1/60	230/3/60	460/3/60
10L2A1	NEMA 1	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp
10L7E1	NEMA 1	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp
10L2A4	NEMA 4 — watertight	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp
10L7E4	NEMA 4 — watertight	—	to 3 hp	to 5 hp	to 7.5 hp
10P1A46	6-foot pendant control	to 1 hp	—	—	—

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.
[2]Controls for 115V single phase motors up to 1.5 hp, include an 8-foot power cord with grounded plug.

Electric Motor Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10S3D4	electric motor controls 230/3/60 to 3 hp	25	12
10S7D4	electric motor controls 230/3/60 to 7.5 hp	25	12
10S10D4	electric motor controls 230/3/60 to 10 hp	28	13
10S20D4	electric motor controls 230/3/60 to 20 hp	28	13
10S30D4	electric motor controls 230/3/60 to 30 hp	60	28
10S7E4	electric motor controls 460/3/60 to 7.5 hp	25	12
10S15E4	electric motor controls 460/3/60 to 15 hp	25	12
10S20E4	electric motor controls 460/3/60 to 20 hp	28	13
10S40E4	electric motor controls 460/3/60 to 40 hp	60	28

Controls include NEMA 4 rated enclosure and NEMA 4X rated pendant control on 50-foot cord.

Motor controls sold separately. Please contact Thern or nearest Thern distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

4WS Series Drum Capacities

Wire Rope Diameter		Breaking Strength[3]		Drum Capacity	4WS1M6		4WS3M10		4WS6M12		4WS9M18		4WS16M20		4WS26M26	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
				1st	21	6	–	–	–	–	–	–	–	–	–	–
3/16	4.8	4,200	1,905	Mid	110	33	–	–	–	–	–	–	–	–	–	–
				Full	260	79	–	–	–	–	–	–	–	–	–	–
				1st	16	4	–	–	–	–	–	–	–	–	–	–
1/4	6.4	7,000	3,175	Mid	62	18	–	–	–	–	–	–	–	–	–	–
				Full	140	42	–	–	–	–	–	–	–	–	–	–
				1st	–	–	34	10	–	–			–	–	–	–
5/16	7.9	9,800	4,445	Mid	–	–	220	67	–	–	–	–	–	–	–	–
				Full	–	–	500	152	–	–	–	–	–	–	–	–
				1st	–	–	27	8	40	12	–	–	–	–	–	–
3/8	9.7	15,100	6,849	Mid	–	–	160	48	300	91	–	–	–	–	–	–
				Full	–	–	360	109	660	201	–	–	–	–	–	–
				1st	–	–	23	7	34	10	87	26.5	–	–	–	–
7/16	11.2	20,400	9,254	Mid	–	–	120	36	220	67	670	204.2	–	–	–	–
				Full	–	–	270	82	500	152	1,500	457.2	–	–	–	–
				1st	–	–	–	–	30	9	76	23.2	–	–	–	–
1/2	12.7	26,600	12,066	Mid	–	–	–	–	170	51	520	158.5	–	–	–	–
				Full	–	–	–	–	390	118	1,170	356.6	–	–	–	–
				1st	–	–	–	–	26	7	67	20.4	89	27.1	–	–
9/16	14.2	33,600	15,240	Mid	–	–	–	–	140	42	420	128.0	690	210.3	–	–
				Full	–	–	–	–	310	94	930	283.5	1,530	466.3	–	–
				1st	–	–	–	–	–	–	59	18	78	23.8	–	–
5/8	16.0	41,200	18,688	Mid	–	–	–	–	–	–	340	103.6	560	170.7	–	–
				Full	–	–	–	–	–	–	760	231.6	1,250	381	–	–
				1st	–	–	–	–	–	–	48	14.6	65	19.8	110	33.5
3/4	19.1	58,800	26,671	Mid	–	–	–	–	–	–	240	73.2	400	121.9	670	204.2
				Full	–	–	–	–	–	–	540	164.6	880	268.2	1,480	451.1
				1st	–	–	–	–	–	–	–	–	54	16.5	94	28.7
7/8	22.4	79,600	36,106	Mid	–	–	–	–	–	–	–	–	290	88.4	480	146.3
				Full	–	–	–	–	–	–	–	–	640	195.1	1,070	326.1
				1st	–	–	–	–	–	–	–	–	47	14.3	82	25.0
1	25.4	103,400	46,902	Mid	–	–	–	–	–	–	–	–	220	167.1	370	112.8
				Full	–	–	–	–	–	–	–	–	490	149.4	830	253.0
				1st	–	–	–	–	–	–	–	–	–	–	71	21.6
1-1/8	28.7	130,000	58,968	Mid	–	–	–	–	–	–	–	–	–	–	300	91.4
				Full	–	–	–	–	–	–	–	–	–	–	660	201.2
				1st	–	–	–	–	–	–	–	–	–	–	63	19.2
1-1/4	31.8	159,800	72,485	Mid	–	–	–	–	–	–	–	–	–	–	240	73.2
				Full	–	–	–	–	–	–	–	–	–	–	530	161.5
				1st	–	–	–	–	–	–	–	–	–	–	56	17.1
1-3/8	34.9	192,000	87,090	Mid	–	–	–	–	–	–	–	–	–	–	200	61.0
				Full	–	–	–	–	–	–	–	–	–	–	440	134.1

Values based on 6x37 IWRC EIPS wire rope.

Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

[3] Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4WS1M6, 4WS3M10, and 4WS6M12 Series Winch Dimensions (in)

Model Extension	A[4]	B[4]	C	D	E	H	J	K	M	N	P	R	S (Hole Dia.)
4WS1M6-800-15	21	21.62	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-800-30	21	22.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-800-40	21.75	23.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1100-20	21	22.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1100-30	21.75	23.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1100-40	21.75	22.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1500-20	21.75	23.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1500-30	21.75	22.38	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS1M6-1500-40	21.75	25	3	6.75	2.25	11.75	1.75	6	9.75	1.25	8.5	11	.44
4WS3M10-2000-15	27.75	26.75	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-2000-20	27.75	25.75	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-2500-20	27.75	28.25	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3000-15	27.75	25.75	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3000-20	27.75	28.25	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3500-7	27.75	32	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3500-15	27.75	28.25	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS3M10-3500-20	28.81	33	5	10.12	2.38	17.5	2.38	10	15	1.88	12.75	16.5	.59
4WS6M12-3000-10	33	26.75	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-3000-20	33	29.5	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-4000-6	33	27.75	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-4000-10	33	29.5	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-4000-20	34	29.25	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-6000-4	33	27.75	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-6000-10	34	29.25	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88
4WS6M12-6000-20	34	31	5.62	12.88	2.5	22.5	3.25	12	19	1.88	18.25	22	.88

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.
[4] Dimensions A and B may vary with motor selection.

4WS9M18, 4WS16M20, and 4WS26M26 Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4WS9M18-7000-20	44	1,118	33.75	857	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-7000-30	45.5	1,156	38.5	978	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-10000-10	44	1,118	33.75	857	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-10000-20	45.5	1,156	38.5	978	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS9M18-10000-30	45.5	1,156	40	1,016	8.5	216	17.75	451	5.13	130	31	787	4	102	18	457
4WS16M20-13000-15	48	1,219	34.75	883	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-13000-20	48	1,219	37	940	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-13000-35	48	1,219	39.5	1,003	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-16000-15	48	1,219	34.75	883	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS16M20-16000-20	48	1,219	37	940	9.5	241	20	508	6.25	159	34	864	4	102	20	508
4WS26M26-22000-20	60.5	1,537	43.5	1,105	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660
4WS26M26-22000-25	60.5	1,537	47	1,194	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660
4WS26M26-22000-35	60.5	1,537	50	1,270	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660
4WS26M26-26000-10	60.5	1,537	42	1,067	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660
4WS26M26-26000-15	60.5	1,537	43.5	1,105	12.38	314	25.38	645	8.06	205	44.5	1,130	5.88	149	26	660

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

L		M		N		P		R		S (hole dia.)		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,100	499
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,100	499
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,100	499
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,100	499
–	–	12.5	318	2.75	70	22	559	12.5	318	1-3/16	30	1,160	527
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,550	704
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,610	731
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,650	749
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,550	704
10	254	13.5	343	2.75	70	27.5	699	16.25	413	1-3/16	30	1,610	731
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,110	1,411
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,290	1,493
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,350	1,520
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,070	1,393
13	330	18.25	464	3	76	36	914	21.75	552	1-3/8	35	3,110	1,411

4WS1M6, 4WS3M10, and 4WS6M12 Series Performance Characteristics

Model Number	Model Number Extensions							Load Rating						Line Speed				Approx. Ship Weight[6]	
	Load Rating		Line Speed		Motor Codes[5]	Clutch Opt	Motor	1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum			
	(lb)	(kg)	(fpm)	(mpm)			(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)	(lb)	(kg)
4WS1M6	800	362	15	4	ABDEF	C	.5	800	362	550	249	420	190	17	5	33	10	155	71
4WS1M6	800	(362	30	9	ABDEF	C	.75	800	362	550	249	420	190	29	8	55	16	165	75
4WS1M6	800	362	40	12	ABDEF	C	1	800	362	550	249	420	190	43	13	82	24	175	80
4WS1M6	1,100	498	20	6	ABDEF	C	.75	1,100	498	800	362	600	272	18	5	32	9	165	75
4WS1M6	1,100	498	30	9	ABDEF	C	1	1,100	498	800	362	600	272	30	9	54	16	175	80
4WS1M6	1,100	498	40	12	DEF	C	1.5	1,100	498	800	362	600	272	44	13	81	24	170	77
4WS1M6	1,500	680	20	6	ABDEF	C	1	1,500	680	1,000	453	800	362	18	5	32	9	175	80
4WS1M6	1,500	680	30	9	DEF	C	1.5	1,500	680	1,100	498	800	362	30	9	54	16	170	77
4WS1M6	1,500	680	40	12	BDEF	C	2	1,500	680	1,100	498	800	362	44	13	81	24	180	82
						Clutch option for 4WS1M6 (for horizontal pulling only)											add:	5	3
4WS3M10	2,000	907	15	4	ABDEF	C	1	2,000	907	1,300	589	1,000	453	14	4	29	8	310	141
4WS3M10	2,000	907	20	6	DEF	C	1.5	2,200	997	1,400	635	1,000	453	18	5	39	11	305	139
4WS3M10	2,500	1,133	20	6	BDEF	C	2	2,500	1,133	1,600	725	1,200	544	22	6	46	14	320	146
4WS3M10	3,000	1,360	15	4	DEF	C	1.5	3,000	1,360	2,000	907	1,500	680	14	4	29	8	305	139
4WS3M10	3,000	1,360	20	6	BDEF	C	2	3,000	1,360	2,000	907	1,500	680	19	5	39	11	320	146
4WS3M10	3,500	1,587	7	2	ABDEF	C	1	3,500	1,587	2,300	1,043	1,700	771	8	2	15	4	330	150
4WS3M10	3,500	1,587	15	4	BDEF	C	2	3,700	1,678	2,500	1,133	1,800	816	14	4	29	8	320	146
4WS3M10	3,500	1,587	20	6	DEF	C	3	3,700	1,678	2,500	1,133	1,800	816	23	7	46	14	330	150
						Clutch option for 4WS3M10 (for horizontal pulling only)											add:	8	4
4WS6M12	3,000	1,360	10	3	DEF	C	1.5	3,400	1,542	2,200	997	1,600	725	12	3	25	7	515	234
4WS6M12	3,000	1,360	20	6	BDEF	C	2	3,100	1,406	2,000	907	1,500	680	20	6	42	12	530	241
4WS6M12	4,000	1,814	6	2	ABDEF	C	1	4,500	2,041	2,900	1,315	2,200	997	6	2	13	4	535	243
4WS6M12	4,000	1,814	10	3	BDEF	C	2	4,500	2,041	2,900	1,315	2,100	952	12	3	25	7	530	241
4WS6M12	4,000	1,814	20	6	DEF	C	3	4,000	1,814	2,500	1,133	1,900	861	24	7	50	15	540	245
4WS6M12	6,000	2,721	4	1	ABDEF	C	1	6,200	2,812	4,000	1,814	3,000	1,360	4	1	8	2	535	243
4WS6M12	6,000	2,721	10	3	DEF	C	3	6,400	2,902	4,200	1,905	3,100	1,406	12	3	25	7	540	245
4WS6M12	6,000	2,721	20	6	DEF	C	5	6,400	2,902	4,200	1,905	3,100	1,406	24	7	50	15	585	266
						Clutch option for 4WS6M12 (for horizontal pulling only)											add:	12	6

When ordering, please indicate Model Number and Extensions. Examples: 4WS1M6-1100-20-A (without clutch); 4WS1M6-1100-20-A-C (with clutch).
Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.
[6] Weight may vary with motor.

[5]

Motor Codes		
A	115 volt	1 phase
B	230 volt	1 phase
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

4WS9M18, 4WS16M20, and 4WS26M26 Series Performance Characteristics

	Model Number Extensions			Motor	Load Rating						Line Speed			
Model	Load Rating	Line Speed	Motor Codes[7]		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4WS9M18	7,000	20	D, E, F	5	7,300	3,312	5,000	2,268	3,800	1,724	21	6.4	41	12.5
4WS9M18	7,000	30	D, E, F	7.5	7,500	3,402	5,200	2,359	4,000	1,815	32	9.8	61	18.6
4WS9M18	10,000	10	D, E, F	5	10,000	4,536	6,900	3,130	5,300	2,405	13	4.0	24	7.3
4WS9M18	10,000	20	D, E, F	7.5	10,000	4,536	6,900	3,130	5,300	2,405	21	6.4	41	12.5
4WS9M18	10,000	30	D, E, F	10	10,000	4,536	6,900	3,130	5,200	2,359	32	9.8	61	18.6
4WS16M20	13,000	15	D, E, F	7.5	13,000	5,897	8,800	3,992	6,700	3,040	14	4.3	26	7.9
4WS16M20	13,000	20	D, E, F	10	13,300	6,033	9,100	4,128	6,900	3,130	18	5.5	35	10.7
4WS16M20	13,000	35	D, E, F	15	13,000	5,897	8,900	4,038	6,700	3,040	35	10.7	68	20.7
4WS16M20	16,000	15	D, E, F	7.5	16,000	7,258	11,100	5,035	8,500	3,856	12	3.7	24	7.3
4WS16M20	16,000	20	D, E, F	10	16,000	7,258	11,100	5,035	8,500	3,856	16	4.9	31	9.4
4WS26M26	22,000	20	D, E, F	15	22,800	10,343	16,700	7,576	13,200	5,988	18	5.5	31	9.4
4WS26M26	22,000	25	D, E, F	20	22,600	10,252	16,500	7,485	13,100	5,943	25	7.6	43	13.1
4WS26M26	22,000	35	D, E, F	25	22,200	10,070	16,300	7,394	12,900	5,852	36	11.0	63	19.2
4WS26M26	26,000	10	D, E, F	10	26,200	11,885	19,400	8,800	15,400	6,986	10	3.0	17	5.2
4WS26M26	26,000	15	D, E, F	15	26,000	11,794	20,200	9,163	16,500	7,485	16	4.9	27	8.2

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.

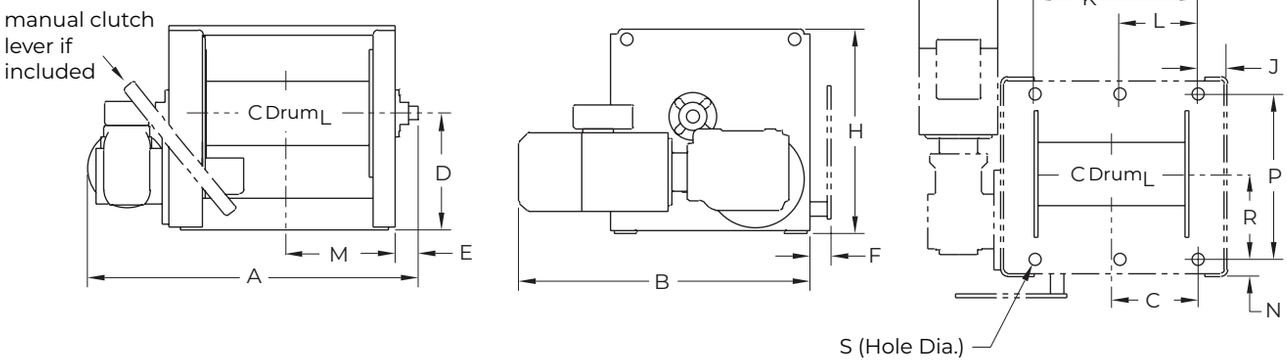
[7]

Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

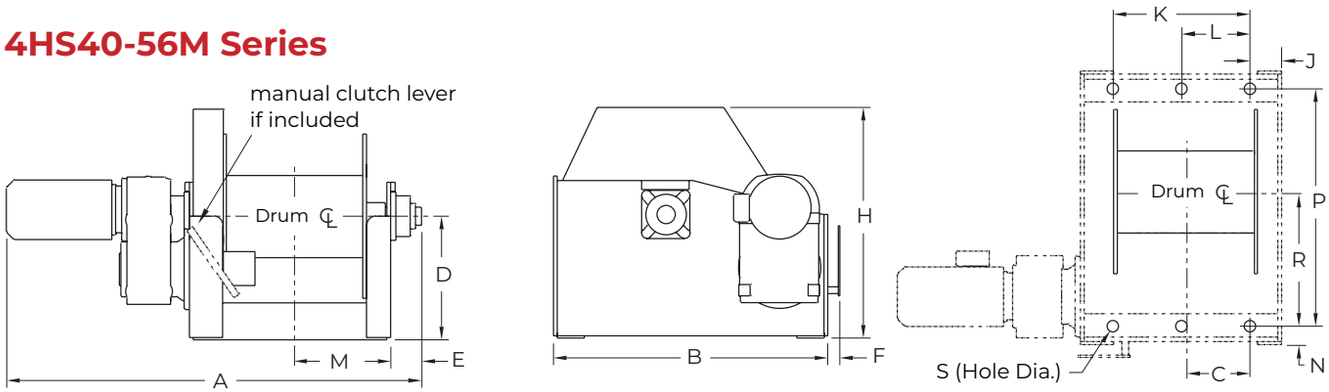
4HS SERIES

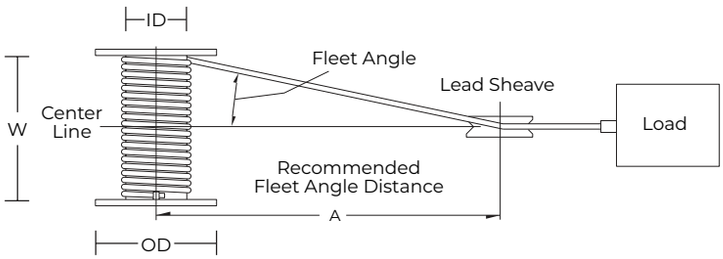
HEAVY-DUTY ELECTRIC POWER WINCHES

4HS6-26M Series



4HS40-56M Series





4HS Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A)[1]	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HS6M	7	178	14	356	18	457	29	8.8
4HS11M	9	229	20	508	18	457	29	8.8
4HS16M	10.75	273	24	610	20	508	32	9.8
4HS26M	14	356	28	711	26	660	42	12.8
4HS40M	18	457	36	914	30	762	48	14.6
4HS56M	24	610	43	1,092	36	914	58	17.7

[1] Recommended minimum distance between drum and lead sheave for smooth drum.

Dimensions are for reference only and subject to change without notice.
Please contact Thern for exact dimensions.

Electric Motor Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10S3D4	electric motor controls 230/3/60 to 3 hp	25	12
10S7D4	electric motor controls 230/3/60 to 7.5 hp	25	12
10S10D4	electric motor controls 230/3/60 to 10 hp	28	13
10S20D4	electric motor controls 230/3/60 to 20 hp	28	13
10S30D4	electric motor controls 230/3/60 to 30 hp	60	28
10S7E4	electric motor controls 460/3/60 to 7.5 hp	25	12
10S15E4	electric motor controls 460/3/60 to 15 hp	25	12
10S20E4	electric motor controls 460/3/60 to 20 hp	28	13
10S40E4	electric motor controls 460/3/60 to 40 hp	60	28
10S60E4	electric motor controls 460/3/60 to 60 hp	60	28

Controls include NEMA 4 rated enclosure and NEMA 4X rated pendant control on 50-foot cord.

Motor controls sold separately. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

4HS Series Drum Capacities

Wire Rope Diameter		Breaking Strength[2]		Drum Capacity	4HS6M		4HS11M		4HS16M		4HS26M		4HS40M		4HS56M	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
				1st	80	24.4	–	–	–	–	–	–	–	–	–	–
3/8	9.7	15,100	6,849	Mid	380	115.8	–	–	–	–	–	–	–	–	–	–
				Full	850	259.1	–	–	–	–	–	–	–	–	–	–
				1st	68	20.7	–	–	–	–	–	–	–	–	–	–
7/16	11.2	20,400	9,254	Mid	290	88.4	–	–	–	–	–	–	–	–	–	–
				Full	640	195.1	–	–	–	–	–	–	–	–	–	–
				1st	60	18.3	76	23.2	–	–	–	–	–	–	–	–
1/2	12.7	26,600	12,066	Mid	220	67.1	520	158.5	–	–	–	–	–	–	–	–
				Full	500	152.4	1,170	356.6	–	–	–	–	–	–	–	–
				1st	53	16.2	67	20.4	89	27.1	–	–	–	–	–	–
9/16	14.2	33,600	15,240	Mid	180	54.9	420	128.0	690	210.3	–	–	–	–	–	–
				Full	400	121.9	930	283.5	1,530	466.3	–	–	–	–	–	–
				1st	–	–	59	18.0	78	23.8	–	–	–	–	–	–
5/8	16.0	41,200	18,688	Mid	–	–	340	103.6	560	170.7	–	–	–	–	–	–
				Full	–	–	760	231.6	1,250	381.0	–	–	–	–	–	–
				1st	–	–	48	14.6	65	19.8	–	–	–	–	–	–
3/4	19.1	58,800	26,671	Mid	–	–	240	73.2	400	121.9	–	–	–	–	–	–
				Full	–	–	540	164.6	880	268.2	–	–	–	–	–	–
				1st	–	–	–	–	54	16.5	94	28.7	–	–	–	–
7/8	22.4	79,600	36,106	Mid	–	–	–	–	290	88.4	480	146.3	–	–	–	–
				Full	–	–	–	–	640	195.1	1,070	326.1	–	–	–	–
				1st	–	–	–	–	47	14.3	82	25.0	–	–	–	–
1	25.4	103,400	46,902	Mid	–	–	–	–	220	67.1	370	112.8	–	–	–	–
				Full	–	–	–	–	490	149.4	830	253.0	–	–	–	–
				1st	–	–	–	–	–	–	71	21.6	110	33.5	–	–
1-1/8	28.7	130,000	58,968	Mid	–	–	–	–	–	–	300	91.4	580	176.8	–	–
				Full	–	–	–	–	–	–	660	201.2	1,290	393.2	–	–
				1st	–	–	–	–	–	–	63	19.2	95	29.0	160	48.8
1-1/4	31.8	159,800	72,485	Mid	–	–	–	–	–	–	240	73.2	460	140.2	730	222.5
				Full	–	–	–	–	–	–	530	161.5	1,030	313.9	1,630	496.8
				1st	–	–	–	–	–	–	56	17.1	85	25.9	140	42.7
1-3/8	34.9	192,000	87,090	Mid	–	–	–	–	–	–	200	61.0	390	118.9	610	185.9
				Full	–	–	–	–	–	–	440	134.1	860	262.1	1,360	414.5
				1st	–	–	–	–	–	–	–	–	77	23.5	130	39.6
1-1/2	38.1	228,000	103,420	Mid	–	–	–	–	–	–	–	–	330	100.6	510	155.4
				Full	–	–	–	–	–	–	–	–	720	219.5	1,140	347.5
				1st	–	–	–	–	–	–	–	–	–	–	110	33.5
1-5/8	41.3	264,000	119,750	Mid	–	–	–	–	–	–	–	–	–	–	430	131.1
				Full	–	–	–	–	–	–	–	–	–	–	950	289.6
				1st	–	–	–	–	–	–	–	–	–	–	110	33.5
1-3/4	44.5	306,000	138,800	Mid	–	–	–	–	–	–	–	–	–	–	370	112.8
				Full	–	–	–	–	–	–	–	–	–	–	820	249.9
				1st	–	–	–	–	–	–	–	–	–	–	97	29.6
1-7/8	47.7	348,000	157,851	Mid	–	–	–	–	–	–	–	–	–	–	320	97.5
				Full	–	–	–	–	–	–	–	–	–	–	720	219.5

[2] Values based on 6x37 IWRC EIPS wire rope.

Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4HS6-26M Series Winch Dimensions

Model	A		B		C		D		E		F		G		H	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HS6M-5000-15	36	914	27.25	692	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-5000-20	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-5000-30	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-6600-15	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-6600-25	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS6M-6600-40	36	914	29.25	743	8.63	219	12.88	327	2.47	63	2.28	58	16.31	414	22.5	572
4HS11M-9000-20	41	1,041	31.75	806	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-9000-30	41.5	1,054	34.75	883	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-9000-40	42.5	1,080	37	940	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-11000-15	41	1,041	31.75	806	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-11000-20	41.5	1,054	34.75	883	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS11M-11000-30	42.5	1,080	37	940	8.5	216	17.75	451	5.13	130	2.38	60	18.44	468	31	787
4HS16M-13000-20	46	1,168	37.5	953	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-13000-25	47	1,194	39.5	1,003	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-13000-40	47	1,194	42	1,067	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-16000-10	46	1,168	34.5	876	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-16000-15	46	1,168	37.5	953	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS16M-16000-20	47	1,194	39.5	1,003	9.5	241	20	508	6.25	159	2.00	51	18.94	481	34	864
4HS26M-22000-15	60.5	1,537	42.5	1,080	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-22000-25	60.5	1,537	45	1,143	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-22000-30	60.5	1,537	48.5	1,232	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-26000-15	60.5	1,537	42.5	1,080	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-26000-20	60.5	1,537	45	1,143	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130
4HS26M-26000-25	60.5	1,537	48.5	1,232	12.38	314	25.38	645	8.06	205	2.44	62	21	533	44.5	1,130

[3] Weight shown without clutch; contact Thern for clutch weight.
Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

4HS40-56M Series Winch Dimensions

Model	A		B		C		D		E		F		G		H	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HS40M-33000-20	91	2,311	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-33000-30	94	2,388	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-33000-40	96	2,438	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-40000-20	91	2,311	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-40000-25	94	2,388	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS40M-40000-35	96	2,438	60	1,524	14	356	27	686	6.75	171	2.63	67	24.63	626	51	1,295
4HS56M-48000-20	108	2,743	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-48000-30	110	2,794	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-52000-35	113	2,870	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-56000-20	108	2,743	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-56000-25	110	2,794	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575
4HS56M-56000-30	113	2,870	72	1,829	18	457	32	813	8.75	222	2.63	67	23.13	588	62	1,575

[3] Weight shown without clutch; contact Thern for clutch weight.
Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

J		K		L		M		N		P		R		S (hole dia.)		Ship Wt.[3]	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	570	259
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	590	268
3.25	83	18	457	–	–	11.88	302	1.88	48	18.25	464	11.13	283	7/8	22	650	295
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,080	490
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,120	509
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,160	527
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,080	490
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,120	509
4	102	18	457	–	–	12.50	318	2.75	70	22	559	12.50	318	1-3/16	30	1,160	527
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,580	717
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,640	744
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,680	763
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,520	690
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,580	717
4	102	20	508	10	254	13.50	343	2.75	70	27.50	699	16.25	413	1-3/16	30	1,640	744
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,130	1,420
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,170	1,438
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,350	1,520
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,130	1,420
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,170	1,438
5.88	149	26	660	13	330	18.25	464	3.00	76	36	914	21.75	552	1-3/8	35	3,350	1,520

J		K		L		M		N		P		R		S (hole dia.)		Ship Wt.[3]	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,570	2,527
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,660	2,568
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,800	2,631
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,570	2,527
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,660	2,568
7	178	30	762	–	–	21	533	4	102	52	1,321	31.5	800	1-3/4	44	5,800	2,631
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,220	4,183
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,370	4,251
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,480	4,301
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,220	4,183
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,370	4,251
7	178	36	914	18	457	25	635	4.5	114	63	1,600	34.5	876	1-3/4	44	9,480	4,301

4HS Series Performance Characteristics

Model	Model Number Extensions				Motor	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes[4]	Clutch Option[5]		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)			(hp)	(lb)	(hp)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HS6M	5,000	15	D, E, F	C	2	5,100	2,314	3,800	1,725	3,100	1,407	13	4.0	22	6.7
4HS6M	5,000	20	D, E, F	C	3	5,100	2,314	3,800	1,725	3,100	1,407	20	6.1	33	10.1
4HS6M	5,000	30	D, E, F	C	5	5,100	2,314	3,800	1,725	3,100	1,407	33	10.1	55	16.8
4HS6M	6,600	15	D, E, F	C	3	6,600	2,994	5,000	2,269	4,000	1,815	15	4.6	25	7.6
4HS6M	6,600	25	D, E, F	C	5	6,600	2,994	4,900	2,224	4,000	1,815	25	7.6	41	12.5
4HS6M	6,600	40	D, E, F	C	7.5	6,600	2,994	5,000	2,269	4,000	1,815	39	11.9	64	19.5
4HS11M	9,000	20	D, E, F	C	5	9,000	4,083	6,200	2,814	4,700	2,132	19	5.8	35	10.7
4HS11M	9,000	30	D, E, F	C	7.5	9,000	4,083	6,200	2,814	4,700	2,132	27	8.2	51	15.5
4HS11M	9,000	40	D, E, F	C	10	9,000	4,083	6,200	2,814	4,700	2,132	37	11.3	70	21.3
4HS11M	11,000	15	D, E, F	C	5	11,000	4,990	7,600	3,449	5,800	2,631	15	4.6	28	8.5
4HS11M	11,000	20	D, E, F	C	7.5	11,000	4,990	7,600	3,449	5,800	2,631	21	6.4	40	12.2
4HS11M	11,000	30	D, E, F	C	10	11,000	4,990	7,600	3,449	5,800	2,631	27	8.2	51	15.5
4HS16M	13,000	20	D, E, F	C	7.5	13,000	5,897	8,900	4,039	6,700	3,040	19	5.8	37	11.3
4HS16M	13,000	25	D, E, F	C	10	13,000	5,897	8,900	4,039	6,700	3,040	24	7.3	46	14.0
4HS16M	13,000	40	D, E, F	C	15	13,000	5,897	8,900	4,039	6,700	3,040	37	11.3	72	21.9
4HS16M	16,000	10	D, E, F	C	5	16,100	7,303	11,000	4,992	8,300	3,765	11	3.4	21	6.4
4HS16M	16,000	15	D, E, F	C	7.5	16,000	7,258	10,900	4,947	8,300	3,765	16	4.9	30	9.1
4HS16M	16,000	20	D, E, F	C	10	16,100	7,303	11,000	4,992	8,300	3,765	20	6.1	38	11.6
4HS26M	22,000	15	D, E, F	C	10	22,000	9,980	16,200	7,352	12,800	5,807	16	4.9	27	8.2
4HS26M	22,000	25	D, E, F	C	15	22,000	9,980	16,100	7,307	12,700	5,761	23	7.0	40	12.2
4HS26M	22,000	30	D, E, F	C	20	22,900	10,388	16,800	7,624	13,200	5,988	29	8.8	50	15.2
4HS26M	26,000	15	D, E, F	C	10	26,000	11,794	19,000	8,623	15,000	6,804	13	4.0	23	7.0
4HS26M	26,000	20	D, E, F	C	15	26,000	11,794	19,000	8,623	15,100	6,850	19	5.8	33	10.1
4HS26M	26,000	25	D, E, F	C	20	26,000	11,794	19,100	8,668	15,000	6,804	26	7.9	45	13.7
4HS40M	33,000	20	D, E, F	C	20	33,100	15,015	24,100	10,937	18,900	8,574	19	5.8	34	10.4
4HS40M	33,000	30	D, E, F	C	30	33,000	14,969	24,100	10,937	18,900	8,574	29	8.8	51	15.5
4HS40M	33,000	40	D, E, F	C	40	33,100	15,015	24,100	10,937	18,900	8,574	39	11.9	68	20.7
4HS40M	40,000	20	D, E, F	C	20	40,300	18,281	29,300	13,297	23,000	10,433	17	5.2	29	8.8
4HS40M	40,000	25	D, E, F	C	30	40,300	18,281	29,400	13,342	23,100	10,479	23	7.0	41	12.5
4HS40M	40,000	35	D, E, F	C	40	40,000	18,144	29,400	13,342	22,900	10,388	34	10.4	59	18.0
4HS56M	48,000	20	D, E, F	C	30	48,000	21,773	37,200	16,882	30,300	13,745	21	6.4	33	10.1
4HS56M	48,000	30	D, E, F	C	40	48,000	21,773	37,200	16,882	30,300	13,745	28	8.5	44	13.4
4HS56M	52,000	35	D, E, F	C	50	52,200	23,678	40,400	18,334	32,900	14,924	33	10.1	52	15.8
4HS56M	56,000	20	D, E, F	C	30	56,000	25,402	43,300	19,650	35,400	16,058	18	5.5	29	8.8
4HS56M	56,000	25	D, E, F	C	40	56,000	25,402	43,400	19,695	35,400	16,058	24	7.3	38	11.6
4HS56M	56,000	30	D, E, F	C	50	56,200	25,493	43,500	19,741	35,500	16,103	30	9.1	47	14.3

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.
[5] Clutch option for horizontal pulling only.

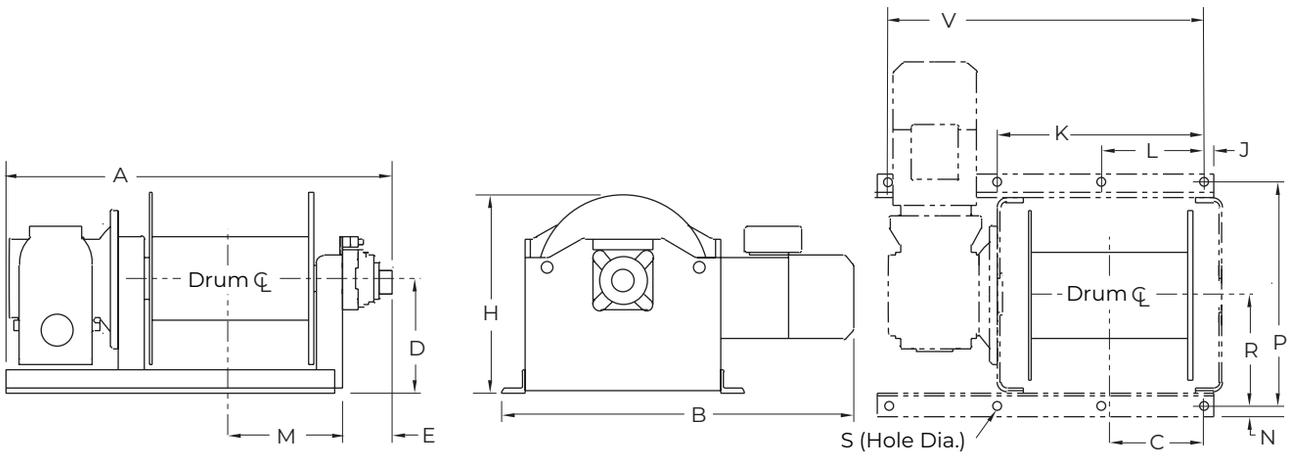
[4]

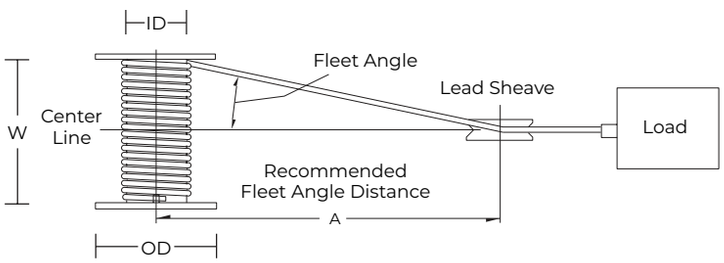
Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

4HWF SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

4HWF Series





4HWF Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A)[1]	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HWF1M	4.5	114	12	305	10	254	16	4.9
4HWF2M	5.5	140	12	305	10	254	16	4.9
4HWF4M	7	178	18	457	16	406	26	7.9
4HWF6M	9	229	18	457	16	406	26	7.9
4HWF8M	10.75	273	22	559	20	508	32	9.8

[1] Recommended minimum distance between drum and lead sheave for smooth drum.

Dimensions are for reference only and subject to change without notice.
Please contact Thern for exact dimensions.

Electric Motor Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10S3D4	electric motor controls 230/3/60 to 3 hp	25	12
10S7D4	electric motor controls 230/3/60 to 7.5 hp	25	12
10S10D4	electric motor controls 230/3/60 to 10 hp	28	13
10S7E4	electric motor controls 460/3/60 to 7.5 hp	25	12
10S15D4	electric motor controls 460/3/60 to 15 hp	25	12

Controls include NEMA 4 rated enclosure and NEMA 4X rated pendant control on 50-foot cord.

Motor controls sold separately. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

4HWF Series Drum Capacities

Wire Rope Diameter		Breaking Strength[2]		Drum Capacity	4HWF1M		4HWF2M		4HWF4M		4HWF6M		4HWF8M	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
				1st	43	13.1	51	15.5	–	–	–	–	–	–
¼	6.4	7,000[3]	3,175	Mid	370	112.8	340	103.6	–	–	–	–	–	–
				Full	830	253	750	228.6	–	–	–	–	–	–
				1st	34	10.4	41	12.5	87	26.5	–	–	–	–
5⁄16	7.9	9,800[3]	4,445	Mid	250	76.2	230	70.1	950	289.5	–	–	–	–
				Full	560	170.7	500	152.4	2,120	646.2	–	–	–	–
				1st	27	8.2	33	10.1	70	21.3	–	–	–	–
⅜	9.7	15,100	6,849	Mid	180	54.9	160	48.8	680	207.3	–	–	–	–
				Full	400	121.9	360	109.7	1,520	463.3	–	–	–	–
				1st	23	7.0	28	8.5	60	18.3	76	23.2	–	–
7⁄16	11.2	20,400	9,254	Mid	130	39.6	120	36.6	510	155.4	450	137.2	–	–
				Full	300	91.4	270	82.3	1,140	347.5	990	301.8	–	–
				1st	–	–	–	–	52	15.8	66	20.1	–	–
½	12.7	26,600	12,066	Mid	–	–	–	–	400	121.9	350	106.7	–	–
				Full	–	–	–	–	890	271.3	770	234.7	–	–
				1st	–	–	–	–	46	14.0	58	17.7	89	27.1
9⁄16	14.2	33,600	15,240	Mid	–	–	–	–	320	97.5	280	85.3	540	164.6
				Full	–	–	–	–	710	216.4	620	189	1,210	368.8
				1st	–	–	–	–	–	–	51	15.5	78	23.8
⅝	16.0	41,200	18,688	Mid	–	–	–	–	–	–	230	70.1	440	134.1
				Full	–	–	–	–	–	–	510	155.4	990	301.8
				1st	–	–	–	–	–	–	42	12.8	65	19.8
¾	19.1	58,800	26,671	Mid	–	–	–	–	–	–	160	48.8	310	94.5
				Full	–	–	–	–	–	–	360	109.7	700	213.4
				1st	–	–	–	–	–	–	–	–	54	16.5
⅞	22.4	79,600	36,106	Mid	–	–	–	–	–	–	–	–	230	70.1
				Full	–	–	–	–	–	–	–	–	500	152.4
				1st	–	–	–	–	–	–	–	–	47	14.3
1	25.4	103,400	46,902	Mid	–	–	–	–	–	–	–	–	180	54.9
				Full	–	–	–	–	–	–	–	–	390	118.9

[2] Values based on 6x37 IWRC EIPS wire rope.
[3] Values based on 7x19 galvanized aircraft cable.

Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4HWF Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HWF1M-1500-25	25.5	648	27	686	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF1M-1500-35	25.5	648	27	686	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF2M-2000-25	26.25	667	28	711	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF2M-2000-35	26.25	667	29.75	756	6	152	8	203	2.38	60	14	356	1	25	20	508
4HWF4M-4000-25	39	991	35	889	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF4M-4000-35	39	991	35	889	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF6M-6000-25	41	1,041	36	914	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF6M-6000-35	41	1,041	39	991	9.63	245	12	305	5.13	130	21	533	1	25	30.5	775
4HWF8M-8000-25	50	1,270	43.5	1,105	12	305	14.5	368	6.25	159	25.5	648	1.25	32	26.5	673
4HWF8M-8000-35	50	1,270	43.5	1,156	12	305	14.5	368	6.25	159	25.5	648	1.25	32	26.5	673

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

4HWF Series Performance Characteristics

	Model Number Extensions			Motor	Load Rating						Line Speed			
Model	Load Rating	Line Speed	Motor Codes[4]		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HWF1M	1,500	25	D,E,F	1.5	1,500	681	900	409	700	318	23	7.0	52	15.8
4HWF1M	1,500	35	D,E,F	2	1,500	681	900	409	700	318	32	9.8	73	22.3
4HWF2M	2,000	25	D,E,F	2	2,200	998	1,500	681	1,200	545	22	6.7	40	12.2
4HWF2M	2,000	35	D,E,F	3	2,200	998	1,500	681	1,200	545	34	10.4	63	19.2
4HWF4M	4,000	25	D,E,F	3	4,000	1,815	2,500	1,134	1,800	817	21	6.4	47	14.3
4HWF4M	4,000	35	D,E,F	5	4,000	1,815	2,500	1,134	1,800	817	35	10.7	78	23.8
4HWF6M	6,000	25	D,E,F	5	6,000	2,722	4,400	1,996	3,400	1,543	24	7.3	42	12.8
4HWF6M	6,000	35	D,E,F	7.5	6,000	2,722	4,400	1,996	3,400	1,543	35	10.7	61	18.6
4HWF8M	8,000	25	D,E,F	7.5	8,100	3,675	5,800	2,631	4,500	2,042	27	8.2	47	14.3
4HWF8M	8,000	35	D,E,F	10	8,100	3,675	5,800	2,631	4,500	2,042	39	11.9	64	19.5

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.

[4]

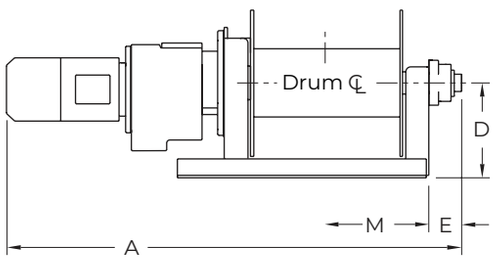
Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

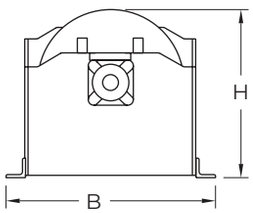
L		M		N		P		R		S (hole dia.)		V		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
10	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	–	–	190	87
10	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	–	–	190	87
10	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	–	–	240	109
10	254	7.56	192	0.63	16	15.75	400	7.88	200	19/32	15	–	–	240	109
15.25	387	11.5	292	1	25	24	610	12.00	305	7/8	22	–	–	480	218
15.25	387	11.5	292	1	25	24	610	12.00	305	7/8	22	–	–	480	218
15.25	387	11.5	292	1	25	24	610	12.00	305	7/8	22	–	–	650	295
15.25	387	11.5	292	1	25	24	610	12.00	305	7/8	22	–	–	710	323
13.25	337	14.5	368	1.13	29	28.75	730	14.38	365	1-1/8	29	39.75	1,010	1,120	509
13.25	337	14.5	368	1.13	29	28.75	730	14.38	365	1-1/8	29	39.75	1,010	1,180	536

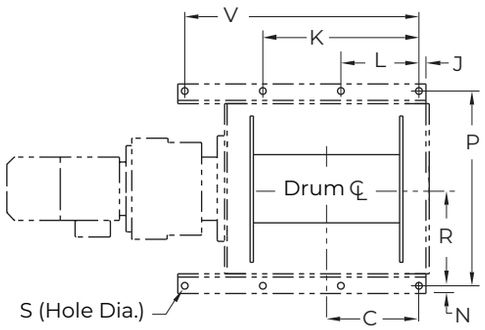
4HPF SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES

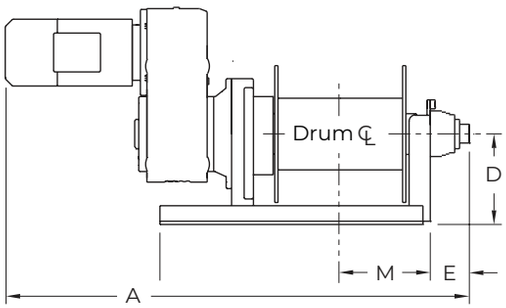
4HPF Series

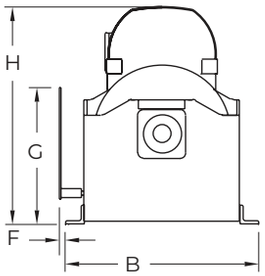


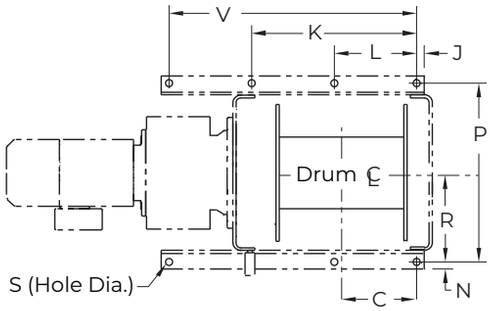


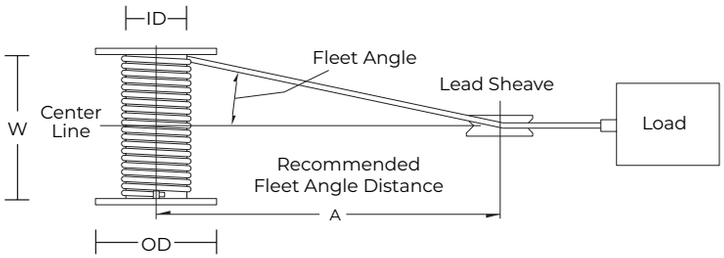


4HPFC Series









4HPF Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)		Fleet Angle Distance (A)[1]	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
4HPF2M	4.5	114	12	305	10	254	16	4.9
4HPF3M	5.5	140	12	305	10	254	16	4.9
4HPF5M	7	178	18	457	16	406	26	7.9
4HPF7M	9	229	18	457	16	406	26	7.9
4HPF9M	10.75	273	22	559	20	508	32	9.8
4HPF15M	11.5	292	22	559	20	508	32	9.8
4HPF20M	14	356	30	762	30	762	48	14.6
4HPF25M	16	406	30	762	30	762	48	14.6

[1] Recommended minimum distance between drum and lead sheave for smooth drum.

Dimensions are for reference only and subject to change without notice.
Please contact Thern for exact dimensions.

Electric Motor Controls

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
10S3D4	electric motor controls 230/3/60 to 3 hp	25	12
10S7D4	electric motor controls 230/3/60 to 7.5 hp	25	12
10S10D4	electric motor controls 230/3/60 to 10 hp	28	13
10S20D4	electric motor controls 230/3/60 to 20 hp	28	13
10S30D4	electric motor controls 230/3/60 to 30 hp	60	28
10S7E4	electric motor controls 460/3/60 to 7.5 hp	25	12
10S15E4	electric motor controls 460/3/60 to 15 hp	25	12
10S20E4	electric motor controls 460/3/60 to 20 hp	28	13
10S40E4	electric motor controls 460/3/60 to 40 hp	60	28

Controls include NEMA 4 rated enclosure and NEMA 4X rated pendant control on 50-foot cord.

Motor controls sold separately. Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery. All prices include mounting and wiring to motor.

4HPF Series Drum Capacities

Wire Rope Diameter		Breaking Strength[2]		Drum Capacity	4HPF2M		4HPF3M		4HPF5M		4HPF7M		4HPF9M		4HPF15M		4HPF20M		4HPF25M	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
				1st	43	13.1	51	15.5	–	–	–	–	–	–	–	–	–	–	–	–
¼	6.4	7,000[3]	3,175	Mid	370	112.8	340	103.6	–	–	–	–	–	–	–	–	–	–	–	–
				Full	830	253.0	750	228.6	–	–	–	–	–	–	–	–	–	–	–	–
				1st	34	10.4	41	12.5	87	26.5	–	–	–	–	–	–	–	–	–	–
5⁄16	7.9	9,800[3]	4,445	Mid	250	76.2	230	70.1	950	289.6	–	–	–	–	–	–	–	–	–	–
				Full	560	170.7	500	152.4	2,120	646.2	–	–	–	–	–	–	–	–	–	–
				1st	27	8.2	33	10.1	70	21.3	–	–	–	–	–	–	–	–	–	–
⅜	9.7	15,100	6,849	Mid	180	54.9	160	48.8	680	207.3	–	–	–	–	–	–	–	–	–	–
				Full	400	121.9	360	109.7	1,520	463.3	–	–	–	–	–	–	–	–	–	–
				1st	23	7	28	8.5	60	18.3	76	23.2	–	–	–	–	–	–	–	–
7⁄16	11.2	20,400	9,254	Mid	130	39.6	120	36.6	510	155.4	450	137.2	–	–	–	–	–	–	–	–
				Full	300	91.4	270	82.3	1,140	347.5	990	301.8	–	–	–	–	–	–	–	–
				1st	–	–	–	–	52	15	66	20.1	–	–	–	–	–	–	–	–
½	12.7	26,600	12,066	Mid	–	–	–	–	400	121	350	106.7	–	–	–	–	–	–	–	–
				Full	–	–	–	–	890	271	770	234.7	–	–	–	–	–	–	–	–
				1st	–	–	–	–	46	14.0	58	17.7	89	27.1	–	–	–	–	–	–
9⁄16	14.2	33,600	15,240	Mid	–	–	–	–	320	97.5	280	85.3	540	164.6	–	–	–	–	–	–
				Full	–	–	–	–	710	216.4	620	189	1,210	368.8	–	–	–	–	–	–
				1st	–	–	–	–	–	–	51	15.5	78	23.8	84	25.6	–	–	–	–
⅝	16.0	41,200	18,688	Mid	–	–	–	–	–	–	230	70.1	440	134.1	420	128	–	–	–	–
				Full	–	–	–	–	–	–	510	155.5	990	301.8	940	286.5	–	–	–	–
				1st	–	–	–	–	–	–	–	–	65	19.8	69	21	130	39.6	–	–
¾	19.1	58,800	26,671	Mid	–	–	–	–	–	–	–	–	310	94.5	300	91.4	930	283.5	–	–
				Full	–	–	–	–	–	–	–	–	700	213.4	660	201.2	2,070	630.9	–	–
				1st	–	–	–	–	–	–	–	–	54	16.5	57	17.4	110	33.5	–	–
⅞	22.4	79,600	36,106	Mid	–	–	–	–	–	–	–	–	230	70.1	210	64	670	204.2	–	–
				Full	–	–	–	–	–	–	–	–	500	152.4	480	146.3	1,490	454.2	–	–
				1st	–	–	–	–	–	–	–	–	47	14.3	57	17.4	97	29.6	110	33.5
1	25.4	103,400	46,902	Mid	–	–	–	–	–	–	–	–	180	54.9	210	64	520	158.5	470	143.3
				Full	–	–	–	–	–	–	–	–	390	118.9	480	146.3	1,160	353.6	1,050	320
				1st	–	–	–	–	–	–	–	–	–	–	–	–	85	25.9	96	29.3
1-⅛	28.7	130,000	58,968	Mid	–	–	–	–	–	–	–	–	–	–	–	–	420	128	380	115.8
				Full	–	–	–	–	–	–	–	–	–	–	–	–	920	280.4	840	256
				1st	–	–	–	–	–	–	–	–	–	–	–	–	76	23.2	86	26.2
1-¼	31.8	159,800	72,485	Mid	–	–	–	–	–	–	–	–	–	–	–	–	330	100.6	300	91.4
				Full	–	–	–	–	–	–	–	–	–	–	–	–	740	225.6	670	204.2
				1st	–	–	–	–	–	–	–	–	–	–	–	–	68	20.7	76	23.2
1-⅜	34.9	192,000	87,090	Mid	–	–	–	–	–	–	–	–	–	–	–	–	280	85.3	250	76.2
				Full	–	–	–	–	–	–	–	–	–	–	–	–	610	185.9	560	170.7
				1st	–	–	–	–	–	–	–	–	–	–	–	–	–	–	69	21
1-½	38.1	228,000	103,420	Mid	–	–	–	–	–	–	–	–	–	–	–	–	–	–	210	64
				Full	–	–	–	–	–	–	–	–	–	–	–	–	–	–	470	143.3

[2] Values based on 6x37 IWRC EIPS wire rope.
[3] Values based on 7x19 galvanized aircraft cable.

Actual drum capacities 25–30% less due to nonuniform winding. Wire rope tension will also affect drum capacity.

Wire rope should be selected based on the breaking strength to load rating ratio and application parameters. Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4HPF Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HPF2M-2000-20	37.50	953	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF2M-2000-35	39	991	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF3M-3000-20	42	1,067	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF3M-3000-35	42	1,067	17	432	6.56	167	8	203	2.38	60	14.50	368	1	25	20	508
4HPF5M-5000-20	54.50	1,384	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF5M-5000-35	54.50	1,384	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF7M-7000-25	56	1,422	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF7M-7000-40	59	1,499	26	660	9.63	245	12	305	5.13	130	21	533	1	25	30.50	775
4HPF9M-9000-20	64.50	1,638	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF9M-9000-40	69.50	1,765	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF15M-15000-25	71.50	1,816	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF15M-15000-35	74	1,880	31	787	12	305	14.50	368	6.25	159	25.50	648	1.25	32	26.50	673
4HPF20M-20000-20	90	2,286	43	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813
4HPF20M-20000-40	97	2,464	43	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813
4HPF25M-25000-20	94	2,388	43	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813
4HPF25M-25000-40	100	2,540	43	1,092	18.88	480	19.50	495	6.75	171	34.50	876	1.50	38	32	813

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

4HPFC Series Winch Dimensions

Model	A		B		C		D		E		F		G		H	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
4HPF2MC-2000-20	38.50	978	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	17	432
4HPF2MC-2000-35	40	1,016	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	17	432
4HPF3MC-3000-20	41	1,041	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	18.25	464
4HPF3MC-3000-35	43	1,092	17	432	6	152	8	203	2.38	60	0.88	23	19.88	505	18.25	464
4HPF5MC-5000-20	55	1,397	26	660	9.63	245	12	305	5.13	130	–	–	22.25	565	24.25	616
4HPF5MC-5000-35	55	1,397	26	660	9.63	245	12	305	5.13	130	–	–	22.25	565	24.25	616
4HPF7MC-7000-25	56	1,422	26	660	9.63	245	12	305	5.13	130	–	–	22.25	565	27	686
4HPF7MC-7000-40	58.50	1,486	26	660	9.63	245	12	305	5.13	130	–	–	22.25	565	27	686
4HPF9MC-9000-20	66	1,676	31	787	12	305	14.50	368	6.25	159	–	–	22	559	32	813
4HPF9MC-9000-40	71	1,803	31	787	12	305	14.50	368	6.25	159	–	–	22	559	32	813
4HPF15MC-15000-25	72.50	1,842	31	787	12	305	14.50	368	6.25	159	–	–	22	559	35	889
4HPF15MC-15000-35	74.50	1,892	31	787	12	305	14.50	368	6.25	159	–	–	22	559	35	889

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

L		M		N		P		R		S (hole dia.)		V		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
10	254	7.56	192	0.63	16	15.75	400	7.86	200	19⁄32	15	–	–	170	78
10	254	7.56	192	0.63	16	15.75	400	7.86	200	19⁄32	15	–	–	200	91
10	254	7.56	192	0.63	16	15.75	400	7.86	200	19⁄32	15	–	–	250	114
10	254	7.56	192	0.63	16	15.75	400	7.86	200	19⁄32	15	–	–	260	118
15.25	387	11.50	292	1	25	24	610	12	305	7⁄8	22	–	–	500	227
15.25	387	11.50	292	1	25	24	610	12	305	7⁄8	22	–	–	500	227
15.25	387	11.50	292	1	25	24	610	12	305	7⁄8	22	–	–	650	295
15.25	387	11.50	292	1	25	24	610	12	305	7⁄8	22	–	–	760	345
13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1⁄8	29	39.75	1,010	1,000	454
13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1⁄8	29	39.75	1,010	1,120	509
13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1⁄8	29	39.75	1,010	1,340	608
13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1⁄8	29	39.75	1,010	1,370	622
16	406	21	533	1.50	38	40	1,016	20	508	1-3⁄8	35	48	1,219	2,400	1,089
16	406	21	533	1.50	38	40	1,016	20	508	1-3⁄8	35	48	1,219	2,620	1,189
16	406	21	533	1.50	38	40	1,016	20	508	1-3⁄8	35	48	1,219	3,190	1,447
16	406	21	533	1.50	38	40	1,016	20	508	1-3⁄8	35	48	1,219	3,440	1,561

J		K		L		M		N		P		R		S (hole dia.)		V		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
1	25	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	19⁄32	15	–	–	270	123
1	25	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	19⁄32	15	–	–	300	137
1	25	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	19⁄32	15	–	–	280	128
1	25	20	508	10	254	7.56	192	0.63	16	15.75	400	7.88	200	19⁄32	15	–	–	300	137
1	25	30.50	775	15.25	387	11.50	292	1	25	24	610	12.00	305	7⁄8	22	–	–	550	250
1	25	30.50	775	15.25	387	11.50	292	1	25	24	610	12.00	305	7⁄8	22	–	–	550	250
1	25	30.50	775	15.25	387	11.50	292	1	25	24	610	12.00	305	7⁄8	22	–	–	700	318
1	25	30.50	775	15.25	387	11.50	292	1	25	24	610	12.00	305	7⁄8	22	–	–	760	345
1.25	32	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1⁄8	29	39.75	1,010	1,250	567
1.25	32	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1⁄8	29	39.75	1,010	1,360	617
1.25	32	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1⁄8	29	39.75	1,010	1,580	717
1.25	32	26.50	673	13.25	337	14.50	368	1.13	29	28.75	730	14.38	365	1-1⁄8	29	39.75	1,010	1,620	735

4HPF Series Performance Characteristics

Model	Model Number Extensions			Motor	Load Rating						Line Speed			
	Load Rating	Line Speed	Motor Codes[5]		1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(fpm)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4HPF2M	2,000	20	D, E, F	1	2,100	953	1,300	590	1,000	454	17	5.2	38	11.6
4HPF2M	2,000	35	D, E, F	2	2,100	953	1,300	590	1,000	454	34	10.4	76	23.2
4HPF3M	3,000	20	D, E, F	1.5	3,000	1,361	2,100	953	1,600	726	19	5.8	33	10.1
4HPF3M	3,000	35	D, E, F	3	3,300	1,497	2,300	1,044	1,800	817	33	10.1	59	18.0
4HPF5M	5,000	20	D, E, F	3	5,000	2,268	3,100	1,407	2,300	1,044	22	6.7	49	14.9
4HPF5M	5,000	35	D, E, F	5	5,000	2,268	3,100	1,407	2,300	1,044	37	11.3	81	24.7
4HPF7M	7,000	25	D, E, F	5	7,300	3,312	5,400	2,450	4,300	1,951	24	7.3	40	12.2
4HPF7M	7,000	40	D, E, F	7.5	7,300	3,312	5,400	2,450	4,300	1,951	38	11.6	64	19.5
4HPF9M	9,000	20	D, E, F	5	9,000	4,083	6,500	2,949	5,100	2,314	21	6.4	37	11.3
4HPF9M	9,000	40	D, E, F	10	9,000	4,083	6,500	2,949	5,100	2,314	41	12.5	73	22.3
4HPF15M	15,000	25	D, E, F	10	14,300	6,487	10,900	4,945	8,800	3,992	26	7.9	41	12.5
4HPF15M	15,000	35	D, E, F	15	15,100	6,850	11,500	5,217	9,300	4,219	36	11.0	59	18.0
4HPF20M	20,000	20	D, E, F	10	20,100	9,118	14,100	6,396	10,800	4,899	17	5.2	31	9.4
4HPF20M	20,000	40	D, E, F	25	20,100	9,118	14,000	6,351	10,800	4,899	43	13.1	81	24.7
4HPF25M	25,000	20	D, E, F	15	25,200	11,431	19,200	8,710	15,500	7,031	20	6.1	32	9.8
4HPF25M	25,000	40	D, E, F	30	25,000	11,340	19,000	8,619	15,500	6,986	42	12.8	68	20.7
4HPF2MC[4]	2,000	20	D, E, F	1	2,100	953	1,300	590	1,000	454	17	5.2	38	11.6
4HPF2MC[4]	2,000	35	D, E, F	2	2,100	953	1,300	590	1,000	454	34	10.4	75	22.9
4HPF3MC[4]	3,000	20	D, E, F	1.5	3,300	1,497	2,300	1,044	1,800	817	17	5.2	60	18.3
4HPF3MC[4]	3,000	35	D, E, F	3	3,300	1,497	2,300	1,044	1,800	817	34	10.4	61	18.6
4HPF5MC[4]	5,000	20	D, E, F	3	5,000	2,268	3,100	1,407	2,300	1,044	21	6.4	45	13.7
4HPF5MC[4]	5,000	35	D, E, F	5	5,000	2,268	3,100	1,407	2,300	1,044	36	11.0	80	24.4
4HPF7MC[4]	7,000	25	D, E, F	5	7,300	3,312	5,400	2,450	4,300	1,951	25	7.6	42	12.8
4HPF7MC[4]	7,000	35	D, E, F	7.5	7,300	3,312	5,400	2,450	4,300	1,951	36	11.0	61	18.6
4HPF9MC[4]	9,000	20	D, E, F	5	9,000	4,083	6,500	2,949	5,100	2,314	21	6.4	37	11.3
4HPF9MC[4]	9,000	40	D, E, F	10	9,000	4,083	6,500	2,949	5,100	2,314	41	12.5	73	22.3
4HPF15MC[4]	15,000	20	D, E, F	10	15,100	6,850	11,500	5,217	9,300	4,219	22	6.7	36	11.0
4HPF15MC[4]	15,000	35	D, E, F	15	15,200	6,895	11,600	5,262	9,400	4,264	35	10.7	57	17.4

Please contact Thern or nearest Thern distributor for firm, fixed price and delivery.

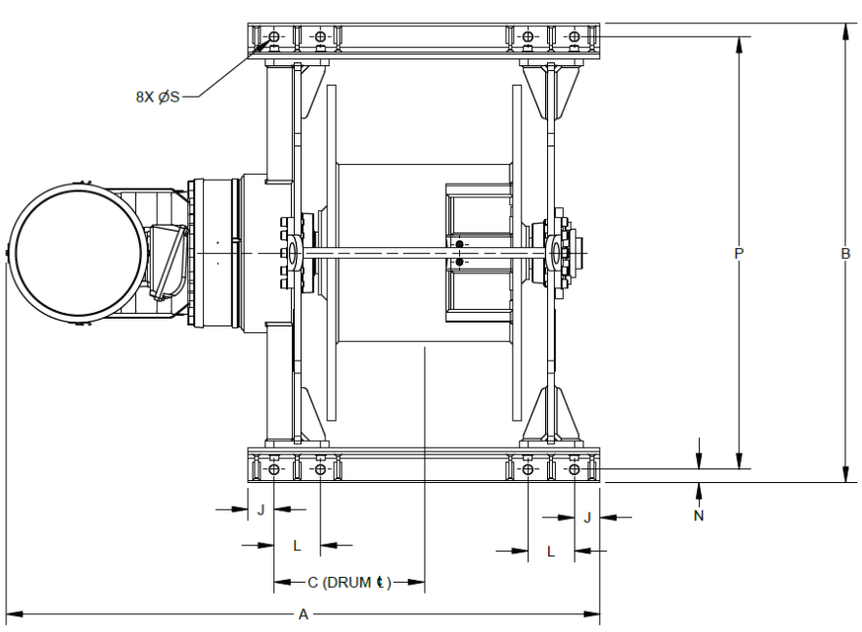
[4] Manual clutch models.

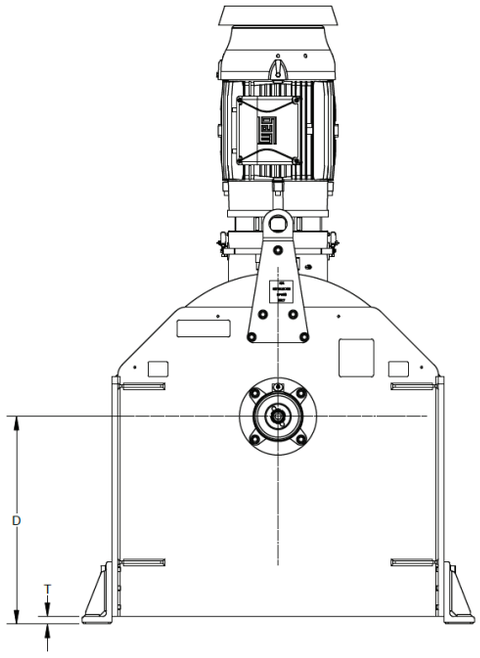
[5]

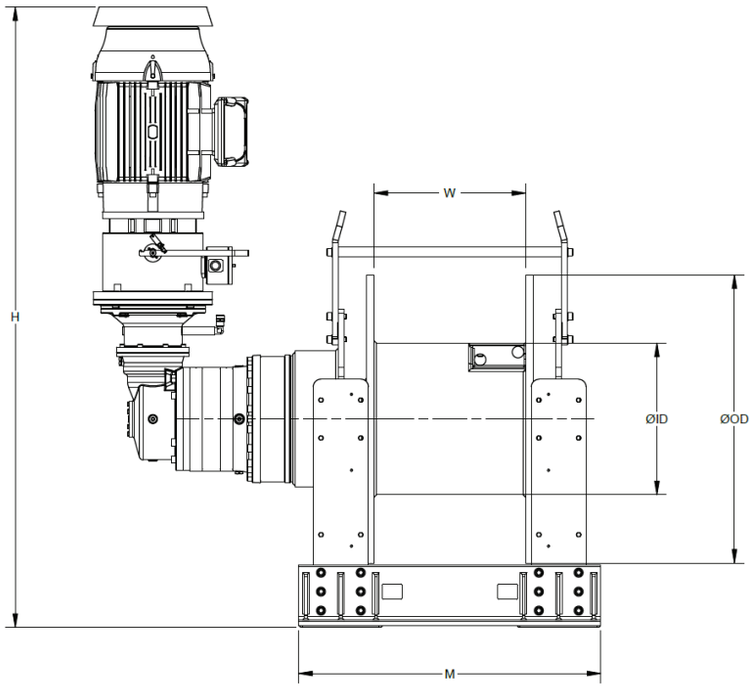
Motor Codes		
D	230 volt	3 phase
E	460 volt	3 phase
F	All other voltages, please contact Thern.	

4BP SERIES

HEAVY-DUTY ELECTRIC POWER WINCHES







Dimensions are for reference only and subject to change without notice.
Please contact Thern for exact dimensions.

4BP Series Drum Dimensions

Model	Drum Diameter (ID)		Flange Diameter (OD)		Drum Width (W)	
	(in)	(mm)	(in)	(mm)	(in)	(mm)
4BP30-20HE	20	508	38	965.2	20	508
4BP30-20LE	20	508	38	965.2	20	508
4BP30-48HE	20	508	38	965.2	48	1219.2
4BP30-48LE	20	508	38	965.2	48	1219.2
4BP40-24HE	24	609.6	42	1066.8	24	609.6
4BP40-24LE	24	609.6	42	1066.8	24	609.6
4BP40-48HE	24	609.6	42	1066.8	48	1219.2
4BP40-48LE	24	609.6	42	1066.8	48	1219.2
4BP50-24HE	24	609.6	46	1168.4	24	609.6
4BP50-24LE	24	609.6	46	1168.4	24	609.6
4BP50-48HE	24	609.6	46	1168.4	48	1219.2
4BP50-48LE	24	609.6	46	1168.4	48	1219.2

4BP Series Drum Capacities

Wire Rope Diameter		Breaking Strength[2]		Drum Capacity	4BP30-20		4BP30-48		4BP40-24		4BP40-48		4BP50-24		4BP50-48	
(in)	(mm)	(lb)	(kg)		(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
				1st	72	21.9	200	60	–	–	–	–	–	–	–	–
1-⅛	28.7	130,000	58,968	Mid	400	121.9	970	60.9	–	–	–	–	–	–	–	–
				Full	900	274.3	2160	158.3	–	–	–	–	–	–	–	–
				1st	63	19.2	180	54.8	95	28.9	220	67	–	–	–	–
1-¼	31.8	159,800	72,485	Mid	320	97.5	770	234.6	440	134.1	870	265.1	–	–	–	–
				Full	720	219.4	1720	524.2	970	295.6	1940	591.3	–	–	–	–
				1st	55	16.7	160	48.7	84	25.6	190	57.9	84	25.6	190	57.9
1-⅜	34.9	192,000	87,090	Mid	270	82.2	650	198.1	360	109.7	730	222.5	480	146.3	950	289.5
				Full	600	182.8	1430	435.8	810	246.8	1620	493.7	1060	323	2120	646.1
				1st	–	–	–	–	75	22.8	180	54.8	75	22.8	180	54.8
1-½	38.1	228,000	103,420	Mid	–	–	–	–	310	94.4	610	185.8	400	121.9	800	243.8
				Full	–	–	–	–	680	207.2	1370	417.5	890	271.2	1790	545.5
				1st	–	–	–	–	–	–	–	–	68	20.7	160	48.7
1-⅝	41.3	264,000	119,750	Mid	–	–	–	–	–	–	–	–	330	100.5	670	204.2
				Full	–	–	–	–	–	–	–	–	740	225.5	1480	451.1

[2] Values based on 6x37 IWRC EIPS wire rope.

Actual drum capacities **25-30%** less due to nonuniform winding. Wire rope tension will also affect drum capacity.

Wire rope should be selected based on the breaking strength to load rating ratio and application parameters.
Industry standards suggest a 5:1 breaking strength to load rating ratio for lifting and a 3:1 ratio for pulling.

4BP Series Winch Dimensions

Model	A		B		C		D		H		J		L		
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	
4BP30-20HE	67.25	1,708	52	1,321	17	432	27.5	699	81.84	2,079	2.94	75	5.25	133	
4BP30-20LE	64.25	1,654	52	1,321	17	432	27.5	699	66.38	1,686	2.94	75	5.25	133	
4BP30-48HE	95.25	2,351	52	1,321	31	787	27.5	699	81.84	2,079	2.94	75	5.25	133	
4BP30-48LE	92.25	2,033	52	1,321	31	787	27.5	699	66.38	1,686	2.94	75	5.25	133	
4BP40-24HE	86.03	2,181	60	1,524	21.75	553	30	762	75.84	1,926	4	102	8	203	
4BP40-24LE	57	2,210	60	1,524	21.75	553	30	762	89.22	2,266	4	102	8	203	
4BP40-48HE	110.03	2,795	60	1,524	33.75	857	30	762	75.84	1,926	4	102	8	203	
4BP40-48LE	111	2,820	60	1,524	33.75	857	30	762	89.22	2,266	4	102	8	203	
4BP50-24HE	87.81	2,230	64	1,626	21.75	553	32	813	77.84	1,977	4	102	8	203	
4BP50-24LE	87	2,210	64	1,626	21.75	553	32	813	91.22	2,317	4	102	8	203	
4BP50-48HE	111.81	2,840	64	1,626	33.75	857	32	813	77.84	1,977	4	102	8	203	
4BP50-48LE	111	2,820	64	1,626	33.75	857	32	813	91.22	2,317	4	102	8	203	

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

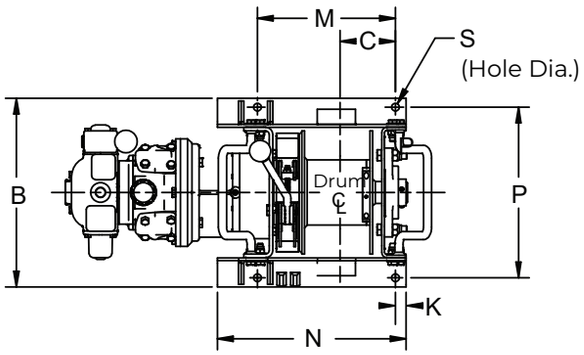
4BP Series Performance Characteristics

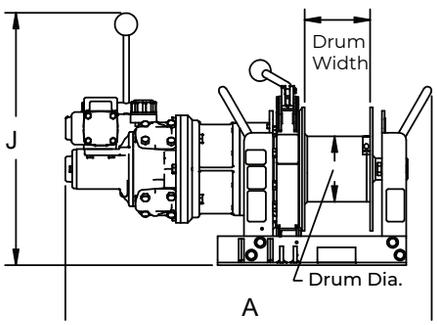
	Model Number Extensions				Load Rating						Line Speed			
Model	Load Rating	Drum Width	Speed	Motor	1st Layer		Mid Drum		Full Drum		1st Layer		Full Drum	
	(lb)	(in)		(hp)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(fpm)	(mpm)	(fpm)	(mpm)
4BP30-20HE	31,000	20	High	50	31,000	14,060	23,200	10,525	18,700	8,485	44	13.1	84	22.9
4BP30-20LE	31,000	20	Low	15	31,000	14,060	23,200	10,525	18,700	8,485	15	4.5	26	7.9
4BP30-48HE	31,000	48	High	50	31,000	14,060	23,200	10,525	18,700	8,485	44	13.1	84	22.9
4BP30-48LE	31,000	48	Low	15	31,000	14,060	23,200	10,525	18,700	8,485	15	4.5	26	7.9
4BP40-24HE	41,500	24	High	75	41,500	18,800	32,900	14,900	27,200	12,300	52	15.8	80	24.4
4BP40-24LE	41,500	24	Low	25	41,500	18,800	32,900	14,900	27,200	12,300	17	5.2	26	7.9
4BP40-48HE	41,500	48	High	75	41,500	18,800	32,900	14,900	27,200	12,300	52	15.8	42	24.4
4BP40-48LE	41,500	48	Low	25	41,500	18,800	32,900	14,900	27,200	12,300	17	5.2	26	7.9
4BP50-24HE	51,000	24	High	75	51,000	23,135	38,300	17,315	30,700	13,925	44	13.4	73	22.3
4BP50-24LE	51,000	24	Low	30	51,000	23,135	38,300	17,315	30,700	13,925	15	4.6	25	7.6
4BP50-48HE	51,000	48	High	75	51,000	23,135	38,300	17,315	30,700	13,925	44	13.4	73	22.3
4BP50-48LE	51,000	48	Low	30	51,000	23,135	38,300	17,315	30,700	13,925	15	4.6	25	7.6

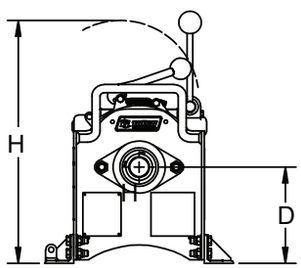
M		N		P		S		T		ID		OD		W		Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
39.88	1,013	1.5	38	49	1,245	1.09	28	1	25	20	508	38	965	20	508	4,347	1,972
39.88	1,013	1.5	38	49	1,245	1.09	28	1	25	20	508	38	965	20	508	3,646	1,654
67.88	1,724	1.5	38	49	1,245	1.09	28	1	25	20	508	38	965	48	1,219	5,184	2,351
67.88	1,724	1.5	38	49	1,245	1.09	28	1	25	20	508	38	965	48	1,219	4,483	2,033
51.5	1,308	2	51	56	1,422	1.63	41	1	25	24	610	42	1,067	24	610	6,133	2,782
51.5	1,308	2	51	56	1,422	1.63	41	1	25	24	610	42	1,067	24	610	6,982	3,167
75.5	1,918	2	51	56	1,422.	1.63	41	1	25	24	610	42	1,067	48	1,219	7,291	3,307
75.5	1,918	2	51	56	1,422	1.63	41	1	25	24	610	42	1,067	48	1,219	8,139	3,692
51.5	1,308	2	51	60	1,524	1.63	41	1	25	24	610	46	1,168	24	610	6,836	3,101
51.5	1,308	2	51	60	1,524	1.63	41	1	25	24	610	46	1,168	24	610	7,477	3,392
75.5	1,918	2	51	60	1,524	1.63	41	1	25	24	610	46	1,168	48	1,219	7,993	3,625
75.5	1,918	2	51	60	1,524	1.63	41	1	25	24	610	46	1,168	48	1,219	8,634	3,916

MINI TA SERIES
AIR WINCHES

Model MTA1000







MTA1000 Load Rating

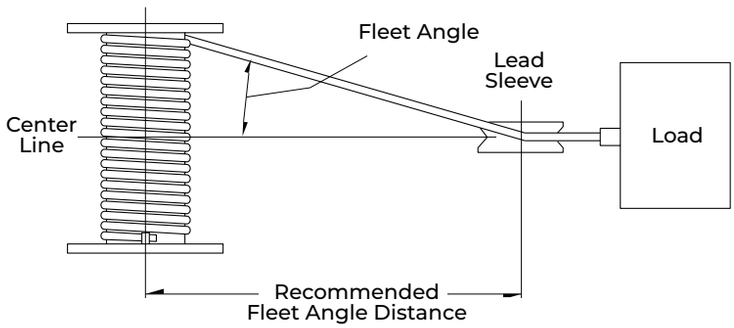
Load Rating 1st Layer	1,400 lb	635 kg
Load Rating Mid Drum	1,000 lb	453 kg
Load Rating Full Drum	800 lb	362 kg
Line Speed 1st Layer*	30 fpm	9 m/min
Line Speed Mid Drum*	41 fpm	12.5 m/min
Line Speed Full Drum*	52 fpm	15.8 m/min
Input HP	1.35 hp	1.0 kw
Max. Stall Pull 1st Layer**	2,600 lbs	1,179 kg
Pressure	90 psi	6.2 bar
Flow	60 scfm	1.69 m3/min
Pipe Inlet Size	0.5 in	12.7 mm
Hose Size	.75 in	19.0 mm

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are at max line pull.

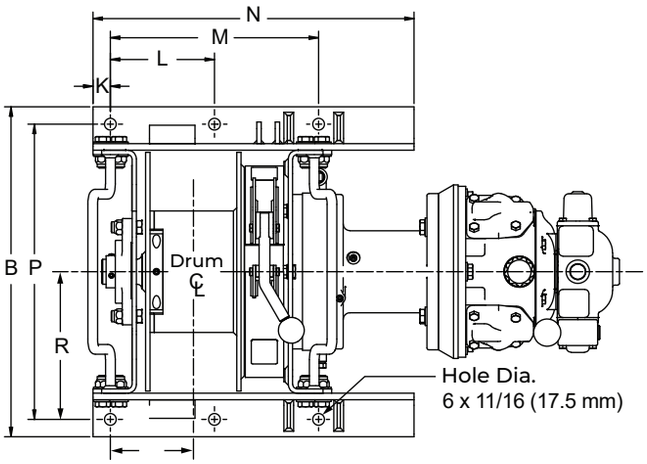
** Estimated value

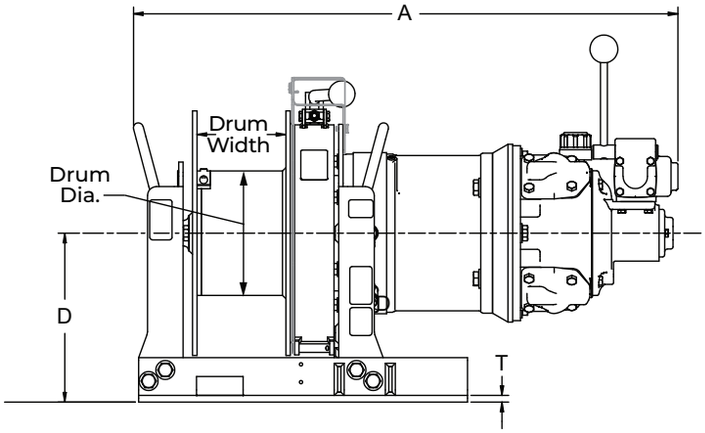
MTA1000 & MTA2000 Minimum Fleet Angle Distances

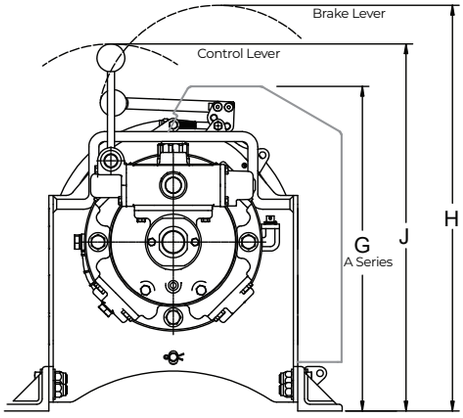
Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
MTA1000	4.5	114	8.5	216	4.5	114	7.16	2.18
MTA2000-5	7	177.8	13.75	349	5.0	127	7.95	2.4
MTA2000-13	7	177.8	13.75	349	13.0	330	20.67	6.3



Model MTA2000







MTA2000 Load Rating

Load Rating 1st Layer	2,700 lb	1,224 kg
Load Rating Mid Drum	2,000 lb	907 kg
Load Rating Full Drum	1,600 lb	725 kg
Line Speed 1st Layer*	40 fpm	12.2 m/min
Line Speed Mid Drum*	54 fpm	16.4 m/min
Line Speed Full Drum*	67 fpm	20.4 m/min
Input HP	3.5 hp	2.6 kw
Max. Stall Pull 1st Layer**	5,800 lbs	2,630 kg
Pressure	90 psi	6.2 bar
Flow	140 scfm	3.96 m3/min
Pipe Inlet Size	0.75 in	19.0 mm
Hose Size	1.0 in	25.4 mm

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are at max line pull.

** Estimated value

MTA1000 Drum Capacities

Drum Width				4.5 in (114 mm)					
Rope Diameter		Breaking Strength*		1st Layer		Mid Drum		Full Drum	
(in)	(mm)	(lb)	(kg)	(ft)	(m)	ft)	(m)	(ft)	(m)
1/4	6.35	7,000	3,175	16	4.8	87	26.5	190	57.9

* Values based on 7x19 galvanized aircraft cable wire rope.

MTA2000 Drum Capacities*

Drum Width		Rope Diameter		Breaking Strength**		1st Layer		Mid Drum		Full Drum	
(in)	(mm)	(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)
5	127	3/8	9.5	15,100	6,849	17	5.1	100	30.4	220	67
13	330	3/8	9.5	15,100	6,849	55	16.7	260	79.2	580	176

* Drum capacity is based on a drum flange clearance at the top layer per ASME B30.7.
** Values based on 6x37 IWRC EIPS wire rope.

MTA1000 Series Winch Dimensions

Model	A		B		C		D		H		J		K		M		N	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
MTA1000 4M1	25.25	641	13	330	3.81	97	6.625	168	16.75	425	17.375	441	0.75	19	9.5	241	13	330
MTA1000 4A1	25.25	641	13	330	3.81	97	6.625	168	-	-	17.375	441	0.75	19	9.5	241	13	330
MTA1000 4A3	25.25	641	13	330	3.81	97	6.625	168	-	-	-	-	0.75	19	9.5	241	13	330

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

MTA2000 Series Winch Dimensions

Model	A		B		C		D		E		H		J		K	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
MTA2000-5M1	30.625	778	19	482	4.781	121	9.5	241	-	-	22.8	579	20.625	524	1.0	25.4
MTA2000-5A1	30.625	778	19	482	4.781	121	9.5	241	18.25	463	-	-	20.625	524	1.0	25.4
MTA2000-5A3	30.625	778	19	482	4.781	121	9.5	241	18.25	463	-	-	-	-	1.0	25.4
MTA2000-13M1	30.625	778	19	482	8.781	223	9.5	241	-	-	22.8	579	20.625	524	1.0	25.4
MTA2000-13A1	30.625	778	19	482	8.781	223	9.5	241	18.25	463	-	-	20.625	524	1.0	25.4
MTA2000-13A3	30.625	778	19	482	8.781	223	9.5	241	18.25	463	-	-	-	-	1.0	25.4

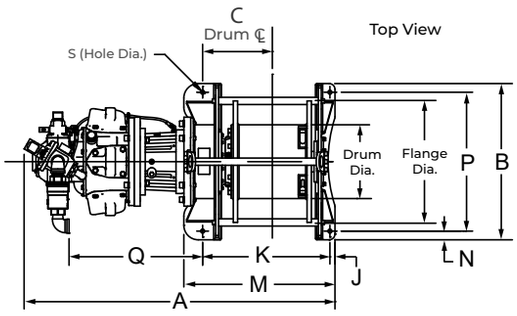
Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

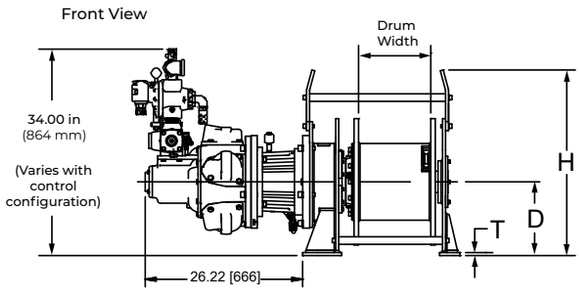
P		S (hole dia.)		Ship Wt.	
(in)	(mm)	(in)	(mm)	(lb)	(kg)
11.75	298	.56	14	124	56
11.75	298	.56	14	133	60
11.75	298	.56	14	153	69

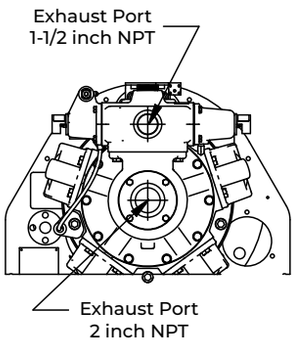
L		M		N		P		S (hole dia.)		T		Ship Weight	
(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(lb)	(kg)
6	152	12	305	18.5	470	17	432	.6875	17.5	.375	9.5	282	128
6	152	12	305	18.5	470	17	432	.6875	17.5	.375	9.5	294	134
6	152	12	305	18.5	470	17	432	.6875	17.5	.375	9.5	315	143
10	254	20	508	26.5	673	17	432	.6875	17.5	.375	9.5	320	145
10	254	20	508	26.5	673	17	432	.6875	17.5	.375	9.5	332	151
10	254	20	508	26.5	673	17	432	.6875	17.5	.375	9.5	353	160

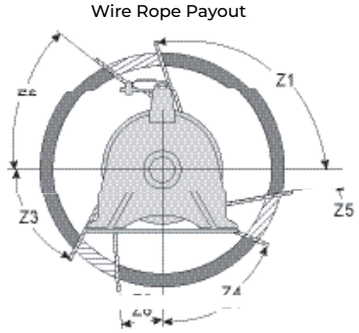
C SERIES
AIR WINCHES

Model TA2.5C









TA2.5C Load Rating

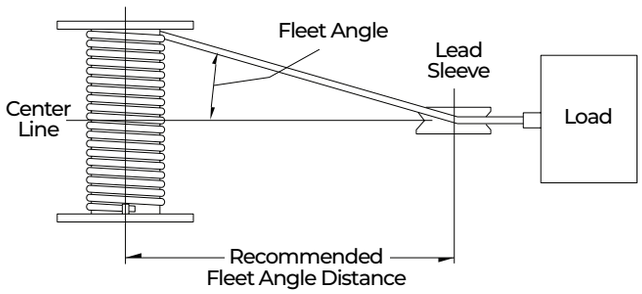
Load Rating 1st Layer	5,500 lb	2,500 kg
Load Rating Mid Drum	5,500 lb	2,500 kg
Load Rating Full Drum	5,500 lb	2,500 kg
Line Speed 1st Layer*	115 fpm	35.1 m/min
Line Speed Mid Drum*	121 fpm	36.9 m/min
Line Speed Full Drum*	130 fpm	39.6 m/min
Input HP	23.5 hp	17.5 kw
Max. Stall Pull 1st Layer**	14,000 lbs	6,350 kg
Pressure	83 psi	5.7 bar
Flow	700 scfm	19.8 m3/min
Pipe Inlet Size	1.5 NPT	-
Hose Size	1.5 in	38.1 mm
Minimum Design Temp	-4° F	-20° C

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are at max line pull.

** Estimated value

TA2.5C Minimum Fleet Angle Distances

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
TA2.5C-12	12.75	323.9	21	533.4	12	304.8	20	6
TA2.5C-16	12.75	323.9	21	533.4	16	406.4	26	8
TA2.5C-24	12.75	323.9	21	533.4	24	609.6	39	12



TA2.5C Drum Capacities*

Drum Width		12 in (305 mm)				16 in (406 mm)				24 in (610 mm)			
Rope Diameter	Breaking Strength**	1st Layer		Mid Drum		1st Layer		Mid Drum		1st Layer		Mid Drum	
(in) (mm)	(lb) (kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
5/8 16	41,200 18,688	50	16	150	45	340	102	71	21	200	60	450	137	110	32	300	91	670	205

* Drum capacity is based on a flange clearance of at least 1.5 times the wire rope diameter with the rope at top layer.
** Values based on 6x37 IWRC EIPS wire rope.

	#Bolts	Bolt Size		Weight[1]	
Series	-	(inch)	(metric)	(lb)	(kg)
TA2.5C-12	4	.625	M16	1,166	528.9
TA2.5C-16	4	.625	M16	1,199	543.9
TA2.5C-24	4	.625	M16	1,267	574.7

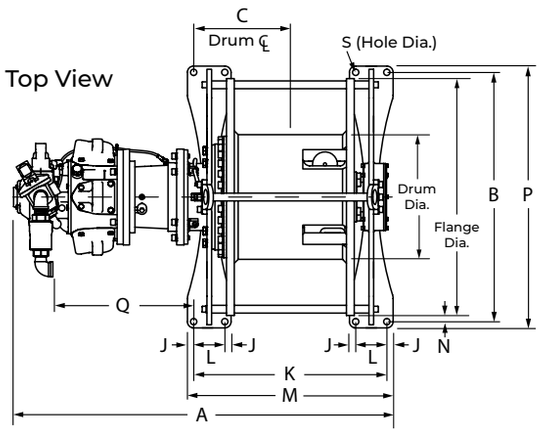
[1] NK[1] Models are 2–3 lbs less (0.9–1.4 kg)

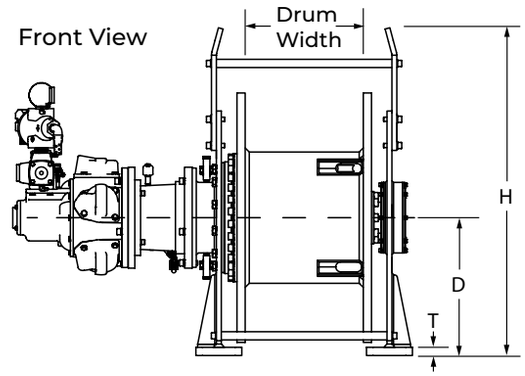
TA2.5C Series Winch Dimensions

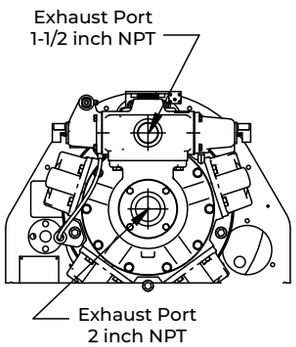
	A (Model NK)		A (Model NK1)		B		C		D		H		L		M		N		O	
Series	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA2.5C-12	53.72	1,364.5	54.06	1,373.0	27.00	685.8	12.03	305.6	12.25	311.2	30.84	783.3	3.25	82.6	26.125	663.6	.875	22.2	1.5	38.1
TA2.5C-16	53.72	1,466.1	58.06	1,474.8	27.00	685.8	14.03	356.4	12.25	311.2	30.84	783.3	3.25	82.6	30.125	765.2	.875	22.2	1.5	38.1
TA2.5C-24	65.72	1,669.3	66.06	1,678.0	27.00	685.8	18.03	458.0	12.25	311.2	30.84	783.3	3.25	82.6	38.125	968.4	.875	22.2	1.5	38.1

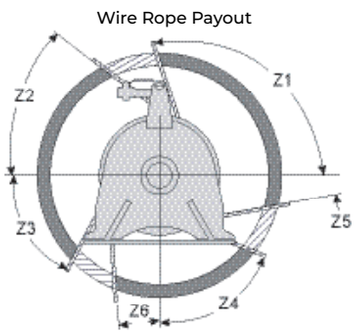
	P		Q		S (Model NK1)		T		Z1	Z2	Z3	Z4	Z5	Z6
Series	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(Degrees)	(Degrees)	(Degrees)	(Degrees)	(Degrees)	(Degrees)
TA2.5C-12	24	609.6	19.84	504.0	.69	17.5	.5	12.7	114°	39°	66°	70°	6°	2°
TA2.5C-16	24	609.6	19.84	504.0	.69	17.5	.5	12.7	114°	39°	66°	70°	6°	2°
TA2.5C-24	24	609.6	19.84	504.0	.69	17.5	.5	12.7	114°	39°	66°	70°	6°	2°

Models TA5C and TA10C









TA5C Load Rating

Load Rating 1st Layer	11,000 lb	5,000 kg
Load Rating Mid Drum	11,000 lb	5,000 kg
Load Rating Full Drum	11,000 lb	5,000 kg
Line Speed 1st Layer*	48 fpm	14.6 m/min
Line Speed Mid Drum*	54 fpm	16.4 m/min
Line Speed Full Drum*	59 fpm	17.9 m/min
Input HP	21.75 hp	16.2 kw
Max. Stall Pull 1st Layer**	29,500 lbs	13,381 kg
Pressure	77 psi	5.3 bar
Flow	700 scfm	19.8 m3/min
Pipe Inlet Size	1.5 in	38.1 mm
Hose Size	1.5 in	38.1 mm
Minimum Design Temp	-4° F	-20° C

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are rated winch capacity.

** Estimated value

TA5C Load Rating

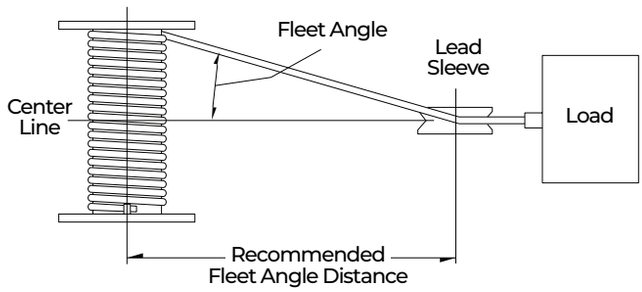
Load Rating 1st Layer	22,000 lb	10,000 kg
Load Rating Mid Drum	22,000 lb	10,000 kg
Load Rating Full Drum	22,000 lb	10,000 kg
Line Speed 1st Layer*	24 fpm	7.3 m/min
Line Speed Mid Drum*	28 fpm	8.5 m/min
Line Speed Full Drum*	32 fpm	9.8 m/min
Input HP	27.64 hp	20.61 kw
Max. Stall Pull 1st Layer**	74,000 lbs	33,565 kg
Pressure	90 psi	6.2 bar
Flow	900 scfm	25.5 m3/min
Pipe Inlet Size	1.5 in	38.1 mm
Hose Size	2.0 in	50.8 mm
Minimum Design Temp	-4° F	-20° C

* Line speeds are estimated values based on testing and may vary based on conditions of air supply. Speeds shown are rated winch capacity.

** Estimated value

TA5C and TA10C Minimum Fleet Angle Distances

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
TA5C-16	16.00	407	28.00	711	16.00	407	26	8
TA5C-24	16.00	407	28.00	711	24.00	610	39	12
TA5C-30	16.00	407	28.00	711	30.00	762	48	15
TA10 C-18	20.00	508	38.00	965	18.00	457	29	9
TA10C-24	20.00	508	38.00	965	24.00	610	39	12
TA10C-30	20.00	508	38.00	965	30.00	762	48	15
TA10C-40	20.00	508	38.00	965	40.00	1,016	64	20



TA5C Drum Capacities*

Drum Width				16 in (406 mm)						24 in (610 mm)						30 in (762 mm)					
Rope Diameter		Breaking Strength**		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum	
(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
3/4	19.1	58,800	26,671	72	21	310	94	690	210	120	36	470	143	1,040	317	150	45	590	180	1,300	396

* Drum capacity is based on a flange clearance of at least 1.5 times the wire rope diameter with the rope at top layer.
** Values based on 6x37 IWRC EIPS wire rope.

Drum Width				18 in (458 mm)						24 in (610 mm)						30 in (762 mm)						40 in (1,016 mm)					
Rope Diameter		Breaking Strength**		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum	
(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
1-1/8	28.6	58,800	26,671	62	19	310	94	680	207	91	28	410	125	910	277	120	37	510	155	1,140	348	170	52	680	207	1,520	463

* Drum capacity is based on a flange clearance of at least 1.5 times the wire rope diameter with the rope at top layer.
** Values based on 6x37 IWRC EIPS wire rope.

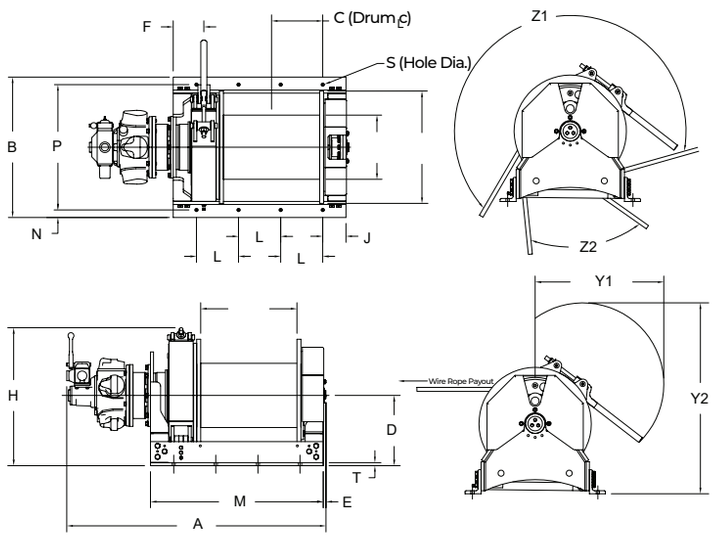
TA5C and TA10C Series Winch Dimensions

Model	A		B		C		D		H		L		M		N		P		S (hole dia.)	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA5C-16	57.4	1,467	35.0	889	13.6	347	16	406	38.6	981	4	102	29.7	754	1.25	32	32	813	.84	21.5
TA5C-24	65.4	1,671	35.0	889	21.6	550	16	406	38.6	981	4	102	37.7	957	1.25	32	32	813	.84	21.5
TA5C-30	71.4	1,823	35.0	889	27.6	703	16	406	38.6	981	4	102	43.7	1,110	1.25	32	32	813	.84	21.5
TA10C-18	60.9	1,547	42	1,067	15.5	394	21	533	49.9	1,268	5	127.0	33	838	1	25	40	1,016	1.03	26
TA10C-24	66.9	1,699	42	1,067	18.5	470	21	533	49.9	1,268	5	127.0	39	991	1	25	40	1,016	1.03	26
TA10C-30	72.9	1,852	42	1,067	21.5	547	21	533	49.9	1,268	5	127.0	45	1,143	1	25	40	1,016	1.03	26
TA10C-40	82.9	2,106	42	1,067	26.5	674	21	533	49.9	1,268	5	127.0	55	1,143	1	25	40	1,016	1.03	26

Model	T		Z1	Z2	Z3	Z4	Z5	Z6	#Bolts	Bolt Size		Weight	
	(in)	(mm)	(Degrees)	(Degrees)	(Degrees)	(Degrees)	(Degrees)	(Degrees)	-	(inch)	(metric)	(lb)	(kg)
TA5C-16	.75	19	108°	38°	62°	68°	10°	3°	8	M20	G10.9	1,600	726
TA5C-24	.75	19	108°	38°	62°	68°	10°	3°	8	M20	G10.9	2,046	788
TA5C-30	.75	19	108°	38°	62°	68°	10°	3°	8	M20	G10.9	2,149	834
TA10C-18	1.25	31.8	111°	34°	64°	64°	5°	5°	8	M20	G10.9	3,309	1,501
TA10C-24	1.25	31.8	111°	34°	64°	64°	5°	5°	8	M20	G10.9	3,463	1,571
TA10C-30	1.25	31.8	111°	34°	64°	64°	5°	5°	8	M20	G10.9	3,618	1,641
TA10C-40	1.25	31.8	111°	34°	64°	64°	5°	5°	8	M20	G10.9	3,876	1,758

BIG RED SERIES
AIR WINCHES

Model TA2 Series, TA2H Series, TA2.5 Series, TA5 Series, and TA7 Series



BIG RED TA Series UTILITY RATED Air Winch Performance Characteristics

	TA2 Series		TA2H Series		TA2.5 Series		TA5 Series		TA7 Series	
Load Rating 1st Layer	7,200 lb	3,265 kg	3,600 lb	1,632 kg	7,200 lb	3,265 kg	18,000 lb	8,164 kg	23,600 lb	10,704 kg
Load Rating Mid Drum	5,700 lb	2,585 kg	2,900 lb	1,315 kg	5,900 lb	2,676 kg	14,000 lb	6,350 kg	19,000 lb	8,618 kg
Load Rating Full Drum	4,700 lb	2,131 kg	2,400 lb	1,088 kg	5,000 lb	2,268 kg	11,500 lb	5,216 kg	15,900 lb	7,212 kg
Line Speed 1st Layer *	30 fpm	9.1 m/min	61 fpm	18.6 m/min	79 fpm	24.1 m/min	30 fpm	9.1 m/min	19 fpm	5.8 m/min
Line Speed Mid Drum *	38 fpm	11.6 m/min	77 fpm	23.5 m/min	96 fpm	29.3 m/min	39 fpm	11.9 m/min	24 fpm	7.3 m/min
Line Speed Full Drum *	46 fpm	14.0 m/min	94 fpm	28.7 m/min	114 fpm	34.7 m/min	47 fpm	14.3 m/min	29 fpm	8.8 m/min
Input HP	7.1 hp	7.1 hp	7.1 hp	7.1 hp	18.3 hp	18.3 hp	17.8 hp	17.8 hp	14.4 hp	14.4 hp
Max. Stall Pull 1st Layer	9,000 lb	4,082 kg	4,500 lb **	2,041kg **	11,000 lb	4,989 kg	33,000 lb	14,968 kg	38,000 lb	17,236 kg
Pressure	90 psi	6.3 kgf/cm2	90 psi	6.3 kgf/cm2	90 psi	6.3 kgf/cm2	90 psi	6.3 kgf/cm2	90 psi	6.3 kgf/cm2
Flow	250 scfm	7.0 m3/min	250 scfm	7.0 m3/min	600 scfm	17.0 m3/min	550 scfm	15.6 m3/min	550 scfm	15.6 m3/min
Pipe Inlet Size	1 in	25.4 mm	1 in	25.4 mm	1.5 in	38.1 mm	1.5 in	38.1 mm	1.5 in	38.1 mm
Hose Size	1.25 in	31.8 mm	1.25 in	31.8 mm	1.5 in	38.1 mm	1.5 in	38.1 mm	1.5 in	38.1 mm

* Line speeds vary based on conditions of air supply. Line speeds may run up to 20% slower when configured with auto band brakes.
** Estimated value

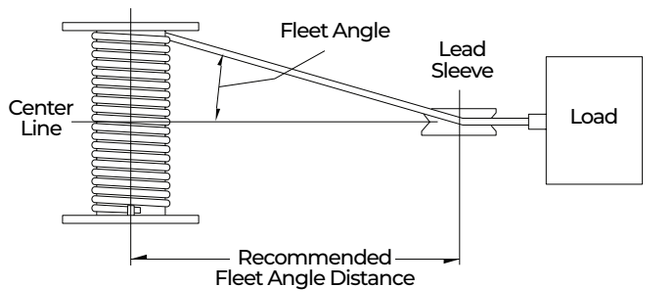
BIG RED TA Series UTILITY RATED Air Winch Drum Capacities*

Model	Wire Rope				Drum Width																					
					16 in (407 mm)						24 in (610 mm)						30 in (762 mm)						36 in (915 mm)			
	Diameter		Breaking Strength**		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum	
	(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
TA2	0.5	12.7	26,600	12,065	83	25	380	115	850	259	130	39	570	173	1,270	387	—	—	—	—	—	—	—	—	—	—	—	—
TA2H	0.5	12.7	26,600	12,065	83	25	380	115	850	259	130	39	570	173	1,270	387	—	—	—	—	—	—	—	—	—	—	—	—
TA2.5	0.63	16.0	41,200	18,688	71	21	260	79	580	176	110	33	390	118	860	262	—	—	—	—	—	—	—	—	—	—	—	—
TA5	0.75	19.1	58,800	26,671	72	21	360	109	810	246	120	36	550	167	1,210	368	150	45	680	207	1,520	463	—	—	—	—	—	—
TA7	0.88	22.4	79,600	36,106	—	—	—	—	—	—	120	36	520	158	1,150	350	160	48	650	198	1,440	438	190	57	780	237	1,730	527

* Drum capacity is based on a drum flange clearance at the top layer per ASME B30.7
** Values based on 6x37 IWRC EIPS wire rope.

Minimum Fleet Angle Distances

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
TA2-16	11.50	292	20	508	16	406	26	8
TA2-24	11.50	292	20	508	24	610	39	12
TA2H-16	11.50	292	20	508	16	406	26	8
TA2H-24	11.50	292	20	508	24	610	39	12
TA2.5-16	12.75	324	21	533	16	406	26	8
TA2.5-24	12.75	324	21	533	24	610	39	12
TA5-16	16	406	28	711	16	406	26	8
TA5-24	16	406	28	711	24	610	39	12
TA5-30	16	406	28	711	30	762	48	15
TA7-24	20	508	33	838	24	610	39	12
TA7-30	20	508	33	838	30	762	48	15
TA7-36	20	508	33	838	36	914	58	18



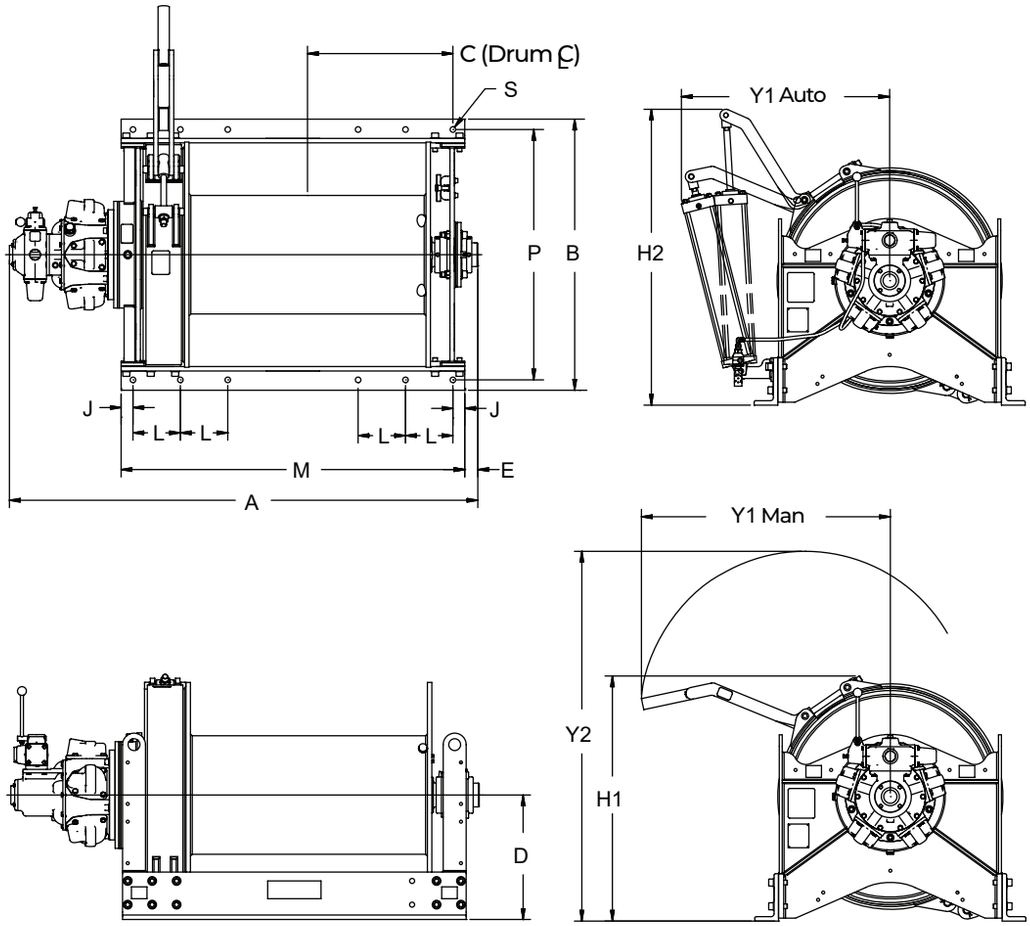
BIG RED TA Series UTILITY RATED Air Winch Dimensions

Model	A		B		C		D		E		F		H		J		L	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA2-16	44	1,118	24	610	9.06	230	14	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191
TA2-24	52	1,321	24	610	12.81	325	14	356	0.54	14	5.25	133	28.50	724	3.13	80	10	254
TA2H-16	44	1,118	24	610	9.06	230	14	356	0.54	14	5.25	133	28.50	724	2.88	73	7.50	191
TA2H-24	52	1,321	24	610	12.81	325	14	356	0.54	14	5.25	133	28.50	724	3.13	80	10	254
TA2.5-16	50	1,270	24	610	9	229	14	356	0.73	19	5.25	133	30	762	2.88	73	7.50	191
TA2.5-24	58	1,473	24	610	12.75	324	14	356	0.73	19	5.25	133	30	762	3.13	80	10	254
TA5-16	57	1,448	35	889	10.53	267	17.50	445	0.68	17	7.75	197	34.50	876	4.03	102	9	229
TA5-24	65	1,651	35	889	12.78	325	17.50	445	0.68	17	7.75	197	34.50	876	5.78	147	10.5	267
TA5-30	71	1,803	35	889	17.03	433	17.50	445	0.68	17	7.75	197	34.50	876	4.53	115	10	254
TA7-24	69	1,753	38	965	15.41	391	20	508	1	25	9.25	235	37	940	5.38	137	9	229
TA7-30	75	1,905	38	965	17.41	442	20	508	1	25	9.25	235	37	940	6.38	162	10	254
TA7-36	81	2,057	38	965	19.41	493	20	508	1	25	9.25	235	37	940	7.38	187	11	279

	M		N		P		S (hole dia.)		T		Y1		Y2		Z1	Z2	Bolts	Bolt Size	Weight *	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(degrees)	(degrees)	(qty)	(in - G8)	(lb)	(kg)
TA2-16	28.5	724	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	990	450
TA2-24	36.5	927	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	1,080	490
TA2H-16	28.5	724	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	990	450
TA2H-24	36.5	927	2	51	20	508	0.69	18	0.50	13	20	508	37	940	223	34	8	5/8	1,080	490
TA2.5-16	28.5	724	2	51	20	508	0.69	18	0.50	13	20	508	37	940	228	27	8	5/8	1,315	597
TA2.5-24	36.5	927	2	51	20	508	0.69	18	0.50	13	20	508	37	940	228	27	8	5/8	1,400	636
TA5-16	35.5	902	1.88	48	31.25	794	0.81	21	0.75	19	32.5	826	48	1,219	224	50	8	3/4	2,585	1,173
TA5-24	43.5	1,105	1.88	48	31.25	794	0.81	21	0.75	19	32.5	826	48	1,219	224	50	8	3/4	2,745	1,246
TA5-30	49.5	1,257	1.88	48	31.25	794	0.81	21	0.75	19	32.5	826	48	1,219	224	50	10	3/4	2,870	1,302
TA7-24	47	1,194	1.88	48	34.25	870	0.94	24	0.75	19	32	813	51	1,295	210	39	10	7/8	3,600	1,633
TA7-30	53	1,346	1.88	48	34.25	870	0.94	24	0.75	19	32	813	51	1,295	210	39	10	7/8	3,765	1,708
TA7-36	59	1,499	1.88	48	34.25	870	0.94	24	0.75	19	32	813	51	1,295	210	39	10	7/8	3,965	1,799

Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

Model TA10 Series



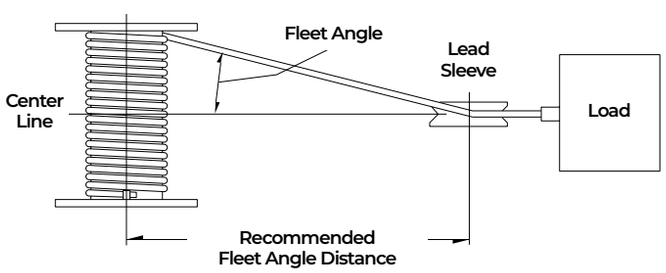
BIG RED TA10 Series Performance Characteristics

TA10 Series		
Load Rating 1st Layer	37,000 lb	16,783 kg
Load Rating Mid Drum	27,400 lb	12,428 kg
Load Rating Full Drum	21,800 lb	9,888 kg
Line Speed 1st Layer *	20 fpm	6.1 m/min
Line Speed Mid Drum *	27 fpm	8.2 m/min
Line Speed Full Drum *	34 fpm	10.4 m/min
Input HP	27 hp	27 hp
Max. Stall Pull 1st Layer	63,000 lb **	28,576 kg
Pressure	90 psi	6.3 kgf/cm2
Flow	900 scfm	25 m3/min
Pipe Inlet Size	1.5 in	38.1 mm
Hose Size	1.5 in	38.1 mm

* Line speeds vary based on conditions of air supply. Line speeds may run up to 20% slower when configured with auto band brakes.
** Estimated value

BIG RED TA10 Series Fleet Angle Requirements

Model	Drum Diameter		Flange Diameter		Drum Width		Fleet Angle Distance	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(ft)	(m)
TA10-30	20	508	38	965	30	762	48	15
TA10-40	20	508	38	965	40	1,016	64	20
TA10-60	20	508	38	965	60	1,524	95	29



BIG RED TA10 Series Air Winch Drum Capacities*

Model	Wire Rope				Drum Width																	
					30 in (762 mm)						40 in (1,016 mm)						60 in (1,524 mm)					
	Diameter		Breaking Strength**		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum		1st Layer		Mid Drum		Full Drum	
	(in)	(mm)	(lb)	(kg)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)	(ft)	(m)
TA10	1-1/8	28.7	130,000	58,968	120	36	620	188	1,390	423	160	48	830	252	1,850	563	260	79	1,250	381	2,780	847

* Drum capacity is based on a drum flange clearance at the top layer per ASME B30.7 ** Values based on 6x37 IWRC EIPS wire rope.

BIG RED TA10 Series Air Winch Dimensions

Model	A		B		C		D		E		H1		H2		J		L	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
TA10-30	69	1,753	45.75	1,162	19.5	495	21	533	2.25	57	41.50	1,054	50	1,270	2	51	8	203
TA10-40	79	2,007	45.75	1,162	24.5	622	21	533	2.25	57	41.50	1,054	50	1,270	2	51	8	203
TA10-60	99	2,515	45.75	1,162	34.5	876	21	533	2.25	57	41.50	1,054	50	1,270	2	51	8	203

	M		P		S (hole diameter)		Y1 (man)		Y1 (auto)		Y2		# Bolts	Bolt Size	Weight *	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)		(in)	(lb)	(kg)
TA10-30	48	1,219	42.25	1,073	.94	24	42	1,067	35.25	895	62.5	1,588	12	7/8 - G8	3,220	1,461
TA10-40	58	1,473	42.25	1,073	.94	24	42	1,067	35.25	895	62.5	1,588	12	7/8 - G8	3,515	1,595
TA10-60	78	1,981	42.25	1,073	.94	24	42	1,067	35.25	895	62.5	1,588	12	7/8 - G8	4,105	1,862

* Weights based on MX1 configuration. Weights subject to change with configurations. Dimensions are for reference only and subject to change without notice. Please contact Thern for exact dimensions.

FIRST MATE®
PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PF5-M1	up to 850 lb capacity with M4022PB spur gear hand winch—powder-coat crane	76	34
5PF5G-M1	up to 850 lb capacity with M4022PB spur gear hand winch—galvanized crane	76	34
5PF5-M2	up to 850 lb capacity with 4WM2 worm gear hand winch—powder-coat crane	101	46
5PF5G-M2	up to 850 lb capacity with 4WM2 worm gear hand winch—galvanized crane	101	46
5PF5S-M3	up to 850 lb capacity with M4042PBSS spur gear hand winch—stainless-steel crane	83	38
5PF5-E2	up to 850 lb capacity with 4WP2 electric winch—powder-coat crane	144	65
Crane Only			
5PF5	up to 850 lb capacity—base model—powder-coat finish	59	27
5PF5G	up to 850 lb capacity—base model—galvanized finish	59	27
5PF5S	up to 850 lb capacity—base model—304 stainless-steel finish	59	27
5PF5S316	up to 850 lb capacity—base model—316 stainless-steel finish	59	27
5PF5X	up to 850 lb capacity—base model—epoxy-gray finish	59	27
Winch Only			
M1	M4022PB—spur gear hand winch only—zinc plated	17	8
M2	4WM2—worm gear hand winch only—powder coat	42	19
M2X	4WM2EGRA—worm gear hand winch only—epoxy gray	42	19
M3	M4042PBSS—spur gear hand winch only—stainless steel	24	11
E2	4WP2 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DCEGRA electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

Wheel base for floor crane operation. Base includes stationary front wheels and rear caster wheels for 360° maneuverability. See Model 5BR5.

IMPORTANT: Base installation is the purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Finishes	MODELS				
	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP5	5BF5	5BW5	–	5BE5-15
Galvanized	5BP5G	5BF5G	5BW5G	–	5BE5-15G
304 Stainless Steel	5BP5S	5BF5S	5BW5S	–	5BE5-15S
316 Stainless Steel	5BP5S316	5BF5S316	5BW5S316	5B–R5	5BE5-15S316
Epoxy Paint	5BP5X	5BF5X	5BW5X	5BR5X	5BE5-15X
Approximate Ship Weight	21 lbs (9.5 kg)	21 lbs (9.5 kg)	23 lbs (10.4 kg)	77 lbs (35 kg)	17 lbs (7.7 kg)

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. See wire rope page for stainless steel and additional wire rope options.

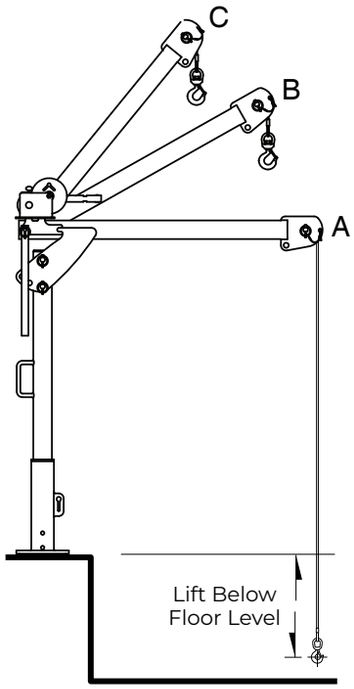
Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA19-20NS	WA25-20NS	WS19-20NS	WS25-20NS
28	8.5	WA19-28NS	WA25-28NS	WS19-28NS	WS25-28NS
36	10.9	WA19-36NS	WA25-36NS	WS19-36NS	WS25-36NS
45	13.7	WA19-45NS	WA25-45NS	WS19-45NS	WS25-45NS
60	18.2	WA19-60NS	WA25-60NS	WS19-60NS	WS25-60NS
75	22.8	WA19-75NS	WA25-75NS	WS19-75NS	WS25-75NS
90	27.4	WA19-90NS	–	WS19-90NS	–

PERFORMANCE

First Mate 5PF5 Series Performance[1]
Lift Below Floor Level with Pedestal Base

Lift Below Floor[2]				Wire Rope Diameter		Wire Rope Length		Winch Configurations Maximum Winch Rating									
Minimum (C)		Maximum (A)						M1		M2		M3		E2		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
6	1.8	9	2.7	3/16”	5	20	6.0	850	385	–	–	850	385	–	–	850	385
14	4.2	17	5.1	3/16”	5	28	8.5	750	340	–	–	850	385	–	–	850	385
22	6.7	25	7.6	3/16”	5	36	10.9	660	299	–	–	850	385	–	–	850	385
31	9.4	34	10.3	3/16”	5	45	13.7	600	272	–	–	810	367	–	–	850	385
46	14.0	49	14.9	3/16”	5	60	18.2	–	–	–	–	740	335	–	–	850	385
61	18.5	64	19.5	3/16”	5	75	22.8	–	–	–	–	690	312	–	–	850	385
76	23.1	79	24.0	3/16”	5	90	27.4	–	–	–	–	640	290	–	–	850	385
106	32.3	109	33.2	3/16”	5	120	36.5	–	–	–	–	–	–	–	–	850	385
6	1.8	9	2.7	1/4”	6	20	6.0	–	–	850	385	850	385	850	385	850	385
14	4.2	17	5.1	1/4"	6	28	8.5	–	–	850	385	830	376	850	385	850	385
22	6.7	25	7.6	1/4”	6	36	10.9	–	–	850	385	740	335	850	385	850	385
31	9.4	34	10.3	1/4”	6	45	13.7	–	–	850	385	740	335	850	385	850	385
46	14.0	49	14.9	1/4”	6	60	18.2	–	–	850	385	–	–	850	385	850	385
61	18.5	64	19.5	1/4”	6	75	22.8	–	–	850	385	–	–	850	385	850	385
For longer lifts, please contact factory.																	

[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
[2] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.



Winch Configurations

First Mate Performance Ratings with Pedestal Base[1]

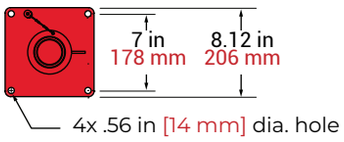
Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A	500	226	42	1,066	40	1,016
B	600	272	35	889	60	1,524
C	850	385	27	609	70	1,778

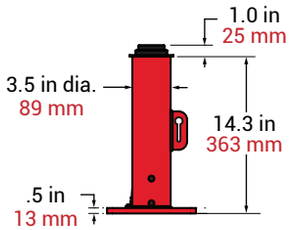
[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
Dimensions are for reference only and subject to change without notice.

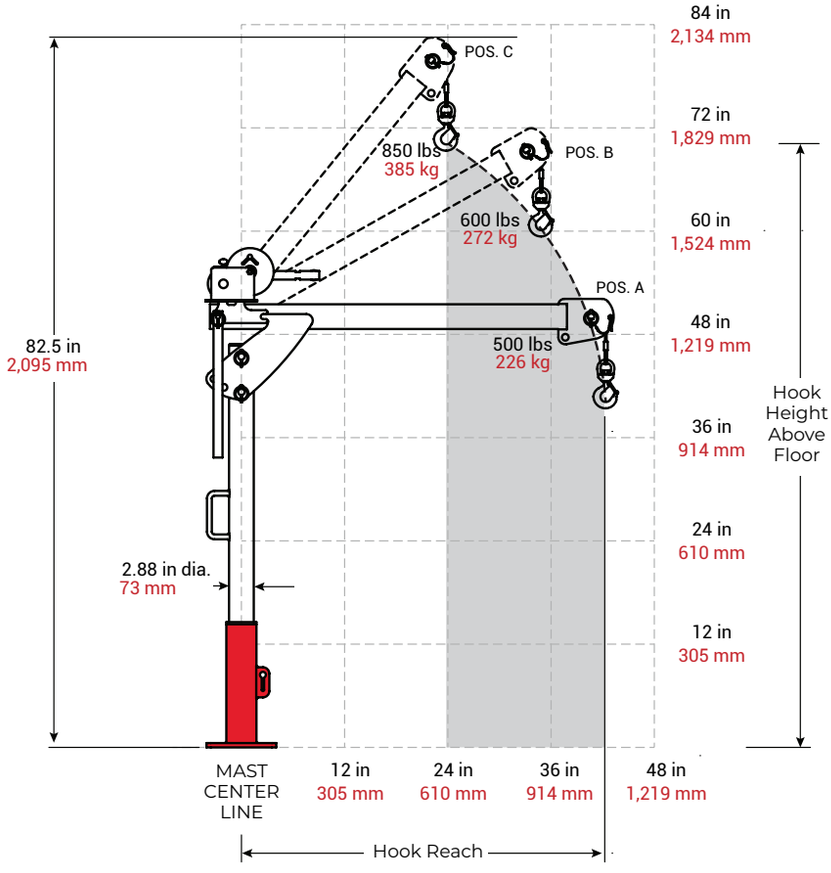
First Mate Pedestal Base

5BP5 5BP5S 5BP5X
5BP5G 5BP5S316

Pedestal Base







First Mate Performance Ratings with Flush- or Wall-Mount Bases[1]

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A	500	226	42	1,066	26	660
B	600	272	35	889	46	1,168
C	850	385	24	609	56	1,422

[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.

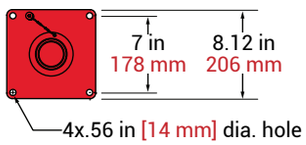
First Mate Flush-Mount Base

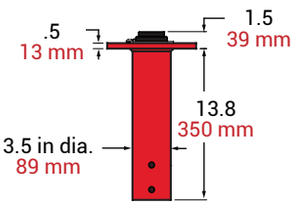
5BF5 5BF5S 5BF5X
5BF5G 5BF5S316

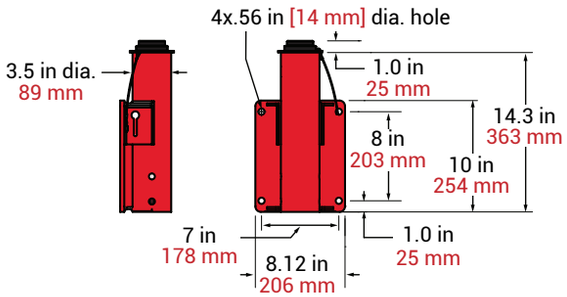
First Mate Wall-Mount Base

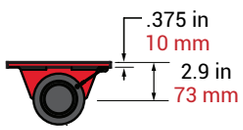
5BW5 5BW5S 5BW5X
5BW5G 5BW5S316

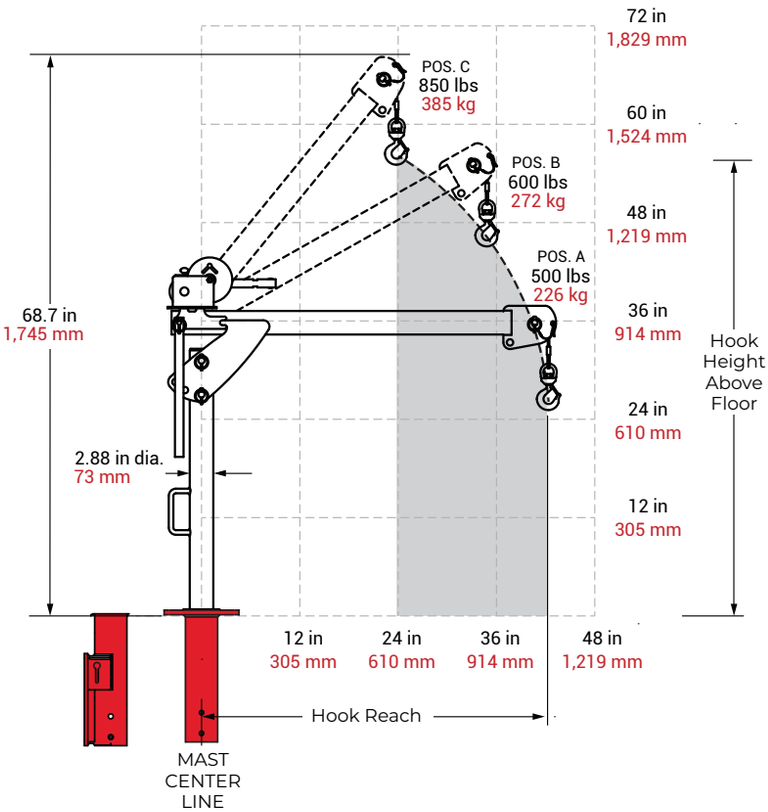
Flush- or Wall-Mount Base











First Mate Performance Ratings with Wheel Base[1]

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A	500	226	42	1,066	44.5	1,130
B	600	272	35	1,524	64.5	1,638
C	850	385	24	1,778	74.5	1,892

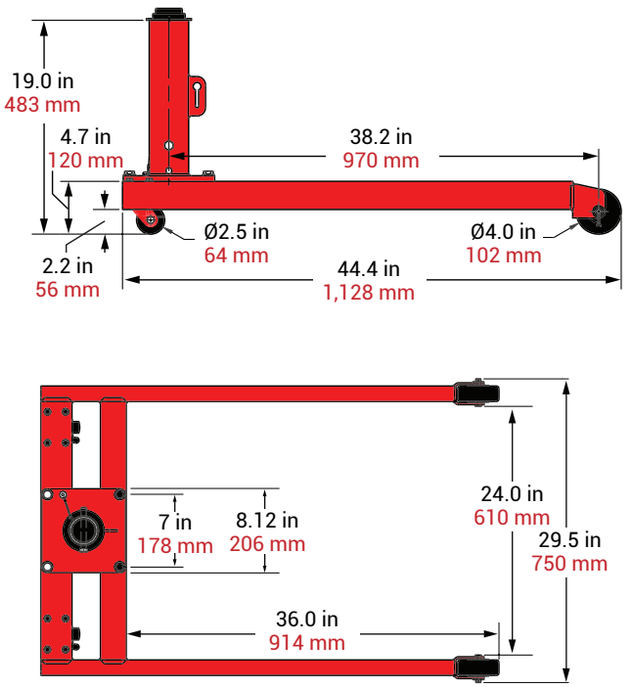
[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

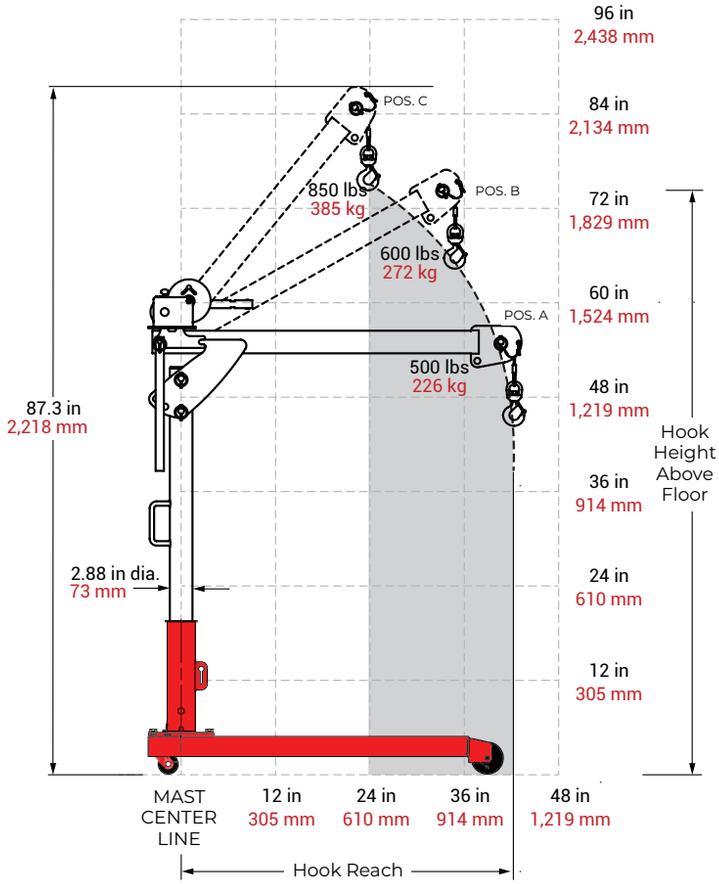
Dimensions are for reference only and subject to change without notice.

First Mate Wheel Base

5BR5 5BR5X

Wheel Base





IMPORTANT:
Crane DOES NOT rotate when assembled in 5BR wheel base.

ENSIGN® 500
PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PA5-M1	up to 500 lb capacity with M4022PB spur gear hand winch—powder-coat crane	82	37
5PA5G-M1	up to 500 lb capacity with M4022PB spur gear hand winch—galvanized crane	82	37
5PA5-M2	up to 500 lb capacity with 4WM2V worm gear hand winch—powder-coat crane	107	49
5PA5G-M2	up to 500 lb capacity with 4WM2V worm gear hand winch—galvanized crane	107	49
5PA5S-M3	up to 500 lb capacity with M4042PBSS spur gear hand winch—stainless-steel crane	89	40
5PA5-E2	up to 500 lb capacity with 4WP2V electric winch—powder-coat crane	150	68
Crane Only			
5PA5	up to 500 lb capacity—base model—powder-coat finish	65	29
5PA5G	up to 500 lb capacity—base model—galvanized finish	65	29
5PA5S	up to 500 lb capacity—base model—304 stainless-steel finish	65	29
5PA5S316	up to 500 lb capacity—base model—316 stainless -steel finish	65	29
5PA5X	up to 500 lb capacity—base model—epoxy-gray finish	65	29
Winch Only			
M1	M4022PB—spur gear hand winch only—zinc plated	17	8
M2	4WM2V—worm gear hand winch only—powder coat	42	19
M2X	4WM2VEGRA—worm gear hand winch only—epoxy gray	42	19
M3	M4042PBSS—spur gear hand winch only—stainless steel	24	11
E2	4WP2V electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2VEGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DCEGRA electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

IMPORTANT: Base installation is the purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Finishes	MODELS		
	Pedestal	Flush	Wall
Powder Coat Paint	5BP5	5BF5	5BW5
Galvanized	5BP5G	5BF5G	5BW5G
304 Stainless Steel	5BP5S	5BF5S	5BW5S
316 Stainless Steel	5BP5S316	5BF5S316	5BW5S316
Epoxy Paint	5BP5X	5BF5X	5BW5X
Approximate Ship Weight	21 lbs (9.5 kg)	21 lbs (9.5 kg)	23 lbs (10.4 kg)

Wire Rope Assemblies—sold separately

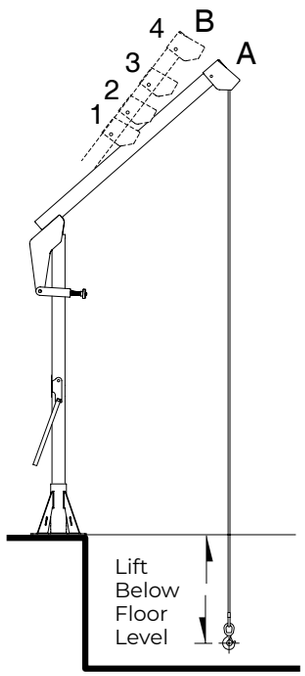
Galvanized or stainless steel wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. See wire rope page for stainless steel and additional wire rope options. 1/8" wire rope is available with reduced load capacity. Please contact factory.

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA19-20NS	WA25-20NS	WS19-20NS	WS25-20NS
28	8.5	WA19-28NS	WA25-28NS	WS19-28NS	WS25-28NS
36	10.9	WA19-36NS	WA25-36NS	WS19-36NS	WS25-36NS
45	13.7	WA19-45NS	WA25-45NS	WS19-45NS	WS25-45NS
60	18.2	WA19-60NS	–	WS19-60NS	–
75	22.8	WA19-75NS	–	WS19-75NS	–

Ensign 500 5PA5 Series
Lift Below Floor[1] Level

Lift Below Floor[2]				Wire Rope Diameter		Wire Rope Length		Winch Configurations Maximum Winch Rating									
Minimum (B4)		Maximum (B1)						M1		M2		M3		E2		E4	
0	0.0	7	2.1	3/16”	5	20	6.0	500	226	–	–	500	226	–	–	500	226
8	2.4	15	4.5	3/16”	5	28	8.5	500	226	–	–	500	226	–	–	500	226
16	4.8	23	7.0	3/16”	5	36	10.9	500	226	–	–	500	226	–	–	500	226
25	7.6	32	9.7	3/16”	5	45	13.7	500	226	–	–	500	226	–	–	500	226
40	12.1	47	14.3	3/16”	5	60	18.2	–	–	–	–	500	226	–	–	500	226
55	16.7	62	18.8	3/16”	5	75	22.8	–	–	–	–	500	226	–	–	500	226
70	21.3	77	23.4	3/16”	5	90	27.4	–	–	–	–			–	–	500	226
100	30.4	107	32.6	3/16”	5	120	36.5	–	–	–	–			–	–	500	226
2	0.6	7	2.1	1/4”	6	20	6.0	–	–	500	226	500	226	500	226	500	226
10	3.0	15	4.5	1/4”	6	28	8.5	–	–	500	226	500	226	500	226	500	226
18	5.4	23	7.0	1/4”	6	36	10.9	–	–	500	226	500	226	500	226	500	226
27	8.2	32	9.7	1/4”	6	45	13.7	–	–	500	226	500	226	500	226	500	226
42	12.8	47	14.3	1/4”	6	60	18.2	–	–	500	226	–	–	500	226	500	226
57	17.3	62	18.8	1/4”	6	75	22.8	–	–	–	–	–	–	–	–	500	226

[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
[2] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.



Winch Configurations

Ensign 500 Performance Ratings with Pedestal Base[1]

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	500	227	17	431	74	1,879
A-2	400	181	22	558	79	2,006
A-3	300	136	28	711	87	2,209
A-4	250	113	36	914	96	2,438
B-1	500	227	14	355	76	1,930
B-2	400	181	17	431	83	2,108
B-3	300	136	22	558	91	2,311
B-4	250	113	28	711	101	2,565

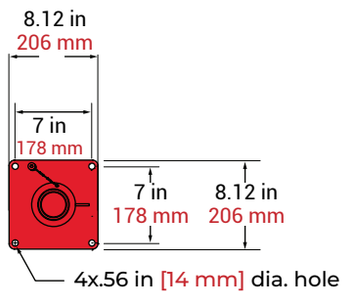
[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

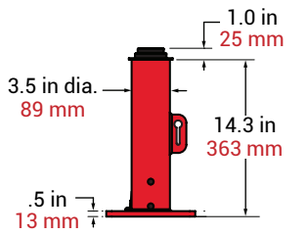
Dimensions are for reference only and subject to change without notice.

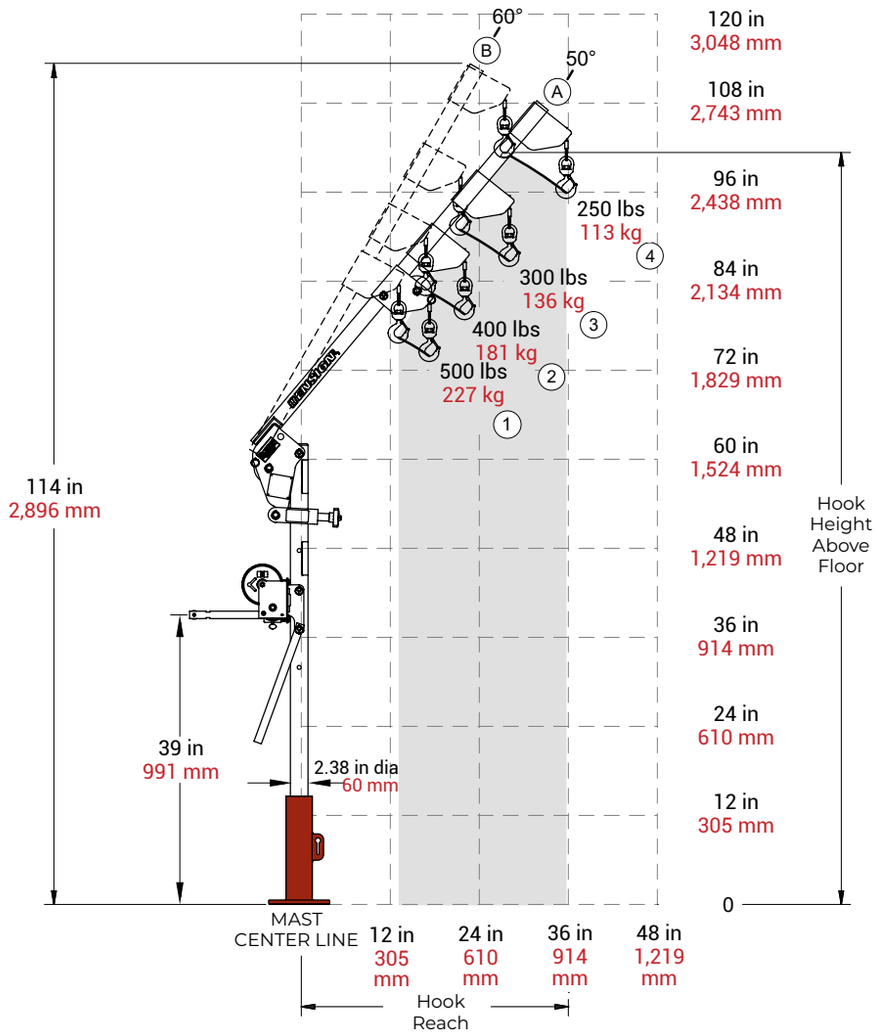
Ensign 500 Pedestal Base

5BP5 5BP5S 5BP5X
5BP5G 5BP5S316

Pedestal Base







Ensign 500 Performance Ratings with Flush- or Wall-Mount Bases[1]

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	500	227	17	431	60	1,524
A-2	400	181	22	558	65	1,651
A-3	300	136	28	711	73	1,854
A-4	250	113	36	914	82	2,082
B-1	500	227	14	355	62	1,574
B-2	400	181	17	431	69	1,752
B-3	300	136	22	558	77	1,955
B-4	250	113	28	711	87	2,209

[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.

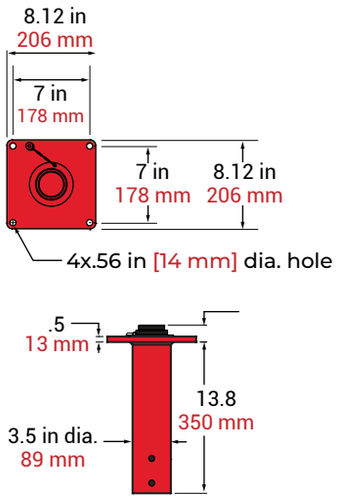
Ensign 500 Flush-Mount Base

5BF5 5BF5S 5BF5X
5BF5G 5BF5S316

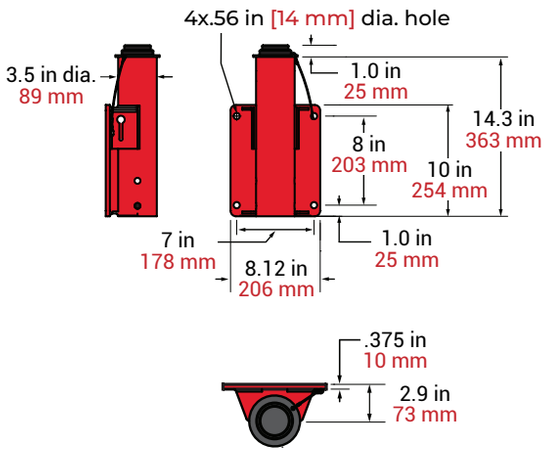
Ensign 500 Wall-Mount Base

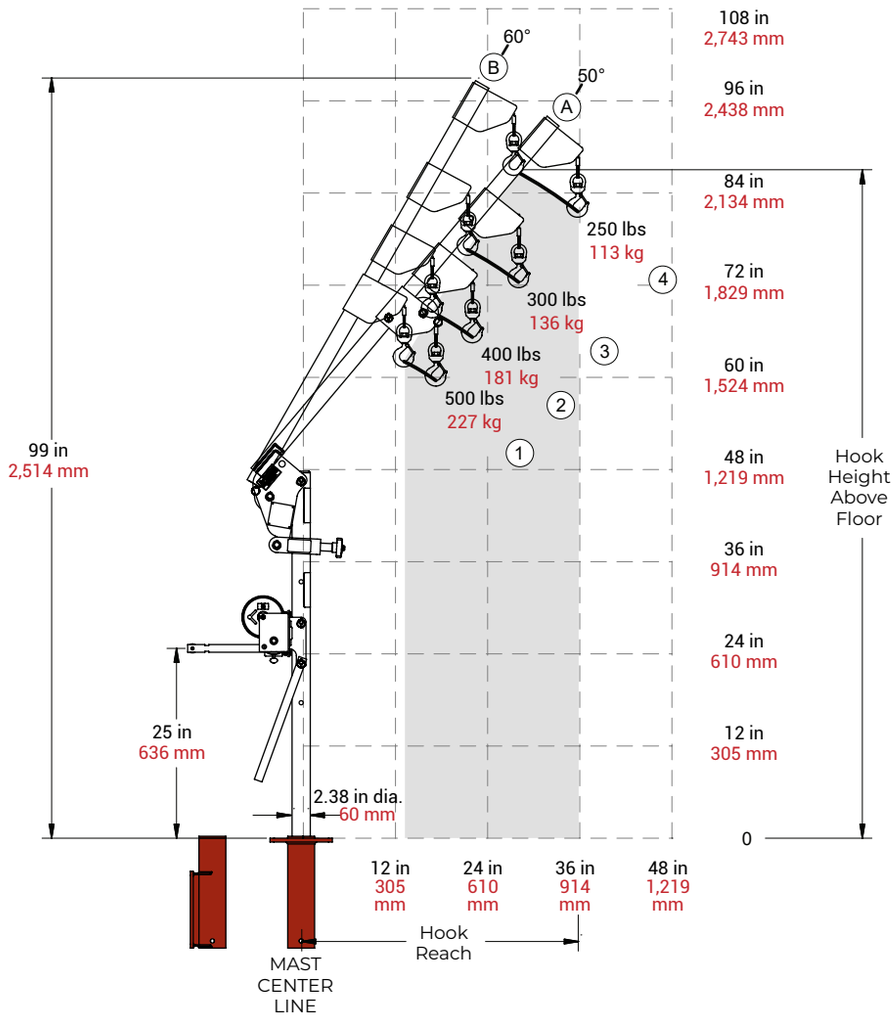
5BW5 5BW5S 5BW5X
5BW5G 5BW5S316

Flush-Mount Base



Wall-Mount Base





ENSIGN® 1000
PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PA10-M1	up to 1,200 lb capacity with M4312PB spur gear hand winch—powder-coat crane	160	73
5PA10G-M1	up to 1,200 lb capacity with M4312PB spur gear hand winch—galvanized crane	160	73
5PA10-M2	up to 1,200 lb capacity with 4WM2V worm gear hand winch—powder-coat crane	185	84
5PA10G-M2	up to 1,200 lb capacity with 4WM2V worm gear hand winch—galvanized crane	185	84
5PA10S-M3	up to 1,200 lb capacity with M4312PBSS spur gear hand winch—stainless-steel crane	167	76
5PA10-E2	up to 1,200 lb capacity with 4WP2V electric winch—powder-coat crane	228	103
Crane Only			
5PA10	up to 1,200 lb capacity—base model—powder-coat finish	143	65
5PA10G	up to 1,200 lb capacity—base model—galvanized finish	143	65
5PA10S	up to 1,200 lb capacity—base model—304 stainless-steel finish	143	65
5PA10S316	up to 1,200 lb capacity—base model—316 stainless-steel finish	143	65
5PA10X	up to 1,200 lb capacity—base model—epoxy-gray finish	143	65
Winch Only			
M1	M4312PB—spur gear hand winch only—zinc plated	17	8
M2	4WM2V—worm gear hand winch only—powder coat	42	19
M2X	4WM2VEGRA—worm gear hand winch only—epoxy gray	42	19
M3	M4312PBSS—spur gear hand winch only—stainless steel	24	11
E2	4WP2V electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2VEGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DCEGRA electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

IMPORTANT: Base installation is the purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Finishes	MODELS		
	Pedestal	Flush	Wall
Powder Coat Paint	5BP10	5BF10	5BW10
Galvanized	5BP10G	5BF10G	5BW10G
304 Stainless Steel	5BP10S	5BF10S	5BW10S
316 Stainless Steel	5BP10S316	5BF10S316	5BW10S316
Epoxy Paint	5BP10X	5BF10X	5BW10X
Approximate Ship Weight	52 lbs (24 kg)	44 lbs (20 kg)	48 lbs (22 kg)



Wire Rope Assemblies—sold separately

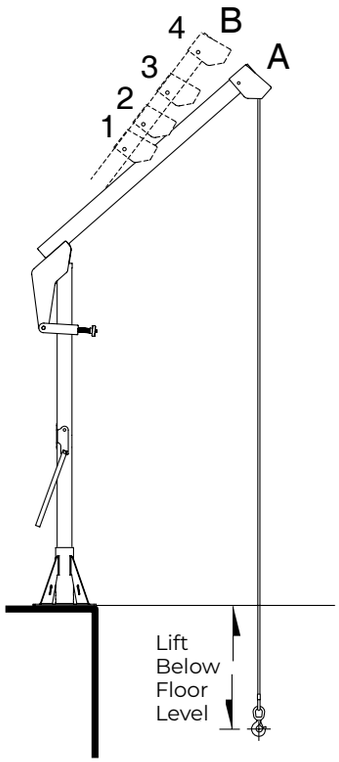
Galvanized or stainless steel wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. See wire rope page for stainless steel and additional wire rope options.

Wire Rope Length		Galvanized Aircraft Cable			304 Stainless Steel Wire Rope		
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	5/16" Dia. (8.0 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	5/16" Dia. 8.0 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.	Model No.	Model No.
20	6.0	–	–	WA31-20DS	–	–	WS31-20DS
28	8.5	WA19-28NS	WA25-28NS	WA31-28DS	WS19-28NS	WS25-28NS	WS31-28DS
36	10.9	WA19-36NS	WA25-36NS	WA31-36DS	WS19-36NS	WS25-36NS	WS31-36DS
45	13.7	WA19-45NS	WA25-45NS	WA31-45DS	WS19-45NS	WS25-45NS	WS31-45DS
60	18.2	WA19-60NS	WA25-60NS	WA31-60DS	WS19-60NS	WS25-60NS	WS31-60DS
75	22.8	WA19-75NS	–	WA31-75DS	WS19-75NS	–	WS31-75DS
90	27.4	WA19-90NS	–	–	WS19-90NS	–	–

Ensign 1000 5PA10 Series
Lift Below Floor[1] Level

Lift Below Floor[2]				Wire Rope Diameter		Wire Rope Length[3]		Winch Configurations Maximum Winch Rating									
Minimum (C4)		Maximum (C1)						M1		M2		M3		E2		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
-3	-0.9	1	0.3	3/16”	5	20	6.0	1,200	544	–	–	1,200	544	–	–	1,200	544
5	1.5	9	2.7	3/16”	5	28	8.5	1,200	544	–	–	1,200	544	–	–	1,200	544
13	3.9	17	5.1	3/16”	5	36	10.9	1,200	544	–	–	1,200	544	–	–	1,200	544
22	6.7	26	7.9	3/16”	5	45	13.7	1,200	544	–	–	1,200	544	–	–	1,200	544
37	11.2	41	12.4	3/16”	5	60	18.2	1,200	544	–	–	1,200	544	–	–	1,200	544
52	15.8	56	17.0	3/16”	5	75	22.8	1,200	544	–	–	1,200	544	–	–	1,200	544
67	20.4	71	21.6	3/16”	5	90	27.4	1,200	544	–	–	1,200	544	–	–	1,200	544
97	29.5	101	30.7	3/16”	5	120	36.5	–	–	–	–	–	–	–	–	1,200	544
-3	-0.9	1	0.3	1/4”	6	20	6.0	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
5	1.5	9	2.7	1/4”	6	28	8.5	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
13	3.9	17	5.1	1/4”	6	36	10.9	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
22	6.7	26	7.9	1/4”	6	45	13.7	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
37	11.2	41	12.4	1/4”	6	60	18.2	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
52	15.8	56	17.0	1/4”	6	75	22.8	–	–	1,200	544	–	–	1,200	544	1,200	544
67	20.4	71	21.6	1/4”	6	90	27.4	–	–	–	–	–	–	–	–	1,200	544
-3	-0.9	1	0.3	5/16”	8	20	6.0	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
5	1.5	9	2.7	5/16”	8	28	8.5	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
13	3.9	17	5.1	5/16”	8	36	10.9	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
22	6.7	26	7.9	5/16”	8	45	13.7	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
37	11.2	41	12.4	5/16”	8	60	18.2	–	–	–	–	–	–	–	–	1,200	544

[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
[2] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.



Winch Configurations

Ensign 1000 Performance Ratings with Pedestal Base[1]

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	1,200	544	26	660	93	2,362
A-2	1,000	453	32	812	98	2,489
A-3	800	362	39	990	104	2,641
A-4	650	294	48	1,219	112	2,844
B-1	1,200	544	22	558	97	2,463
B-2	1,000	453	26	660	103	2,616
B-3	800	362	32	812	110	2,794
B-4	650	294	39	990	120	3,048

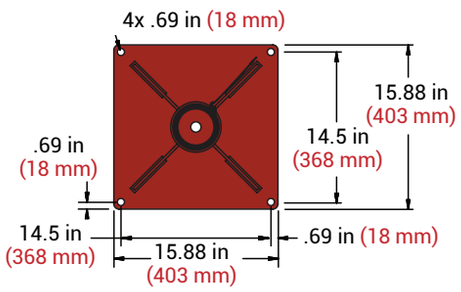
[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

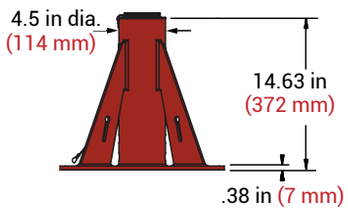
Dimensions are for reference only and subject to change without notice.

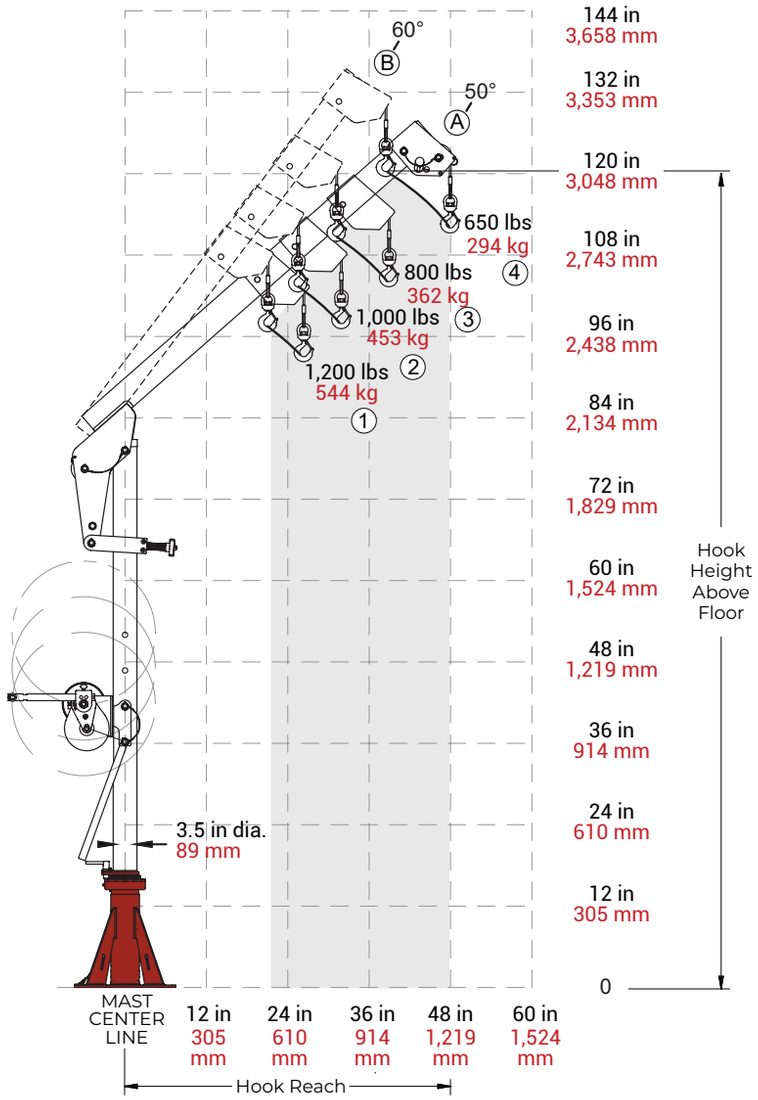
Ensign 1000 Pedestal Base

5BP10 5BP10S 5BP10X
5BP10G 5BP10S316

Pedestal Base







Ensign 1000 Performance Ratings with Flush- or Wall-Mount Bases[1]

Boom Position	Load Rating		Hook Reach		Hook Height	
	(lb)	(kg)	(in)	(mm)	(in)	(mm)
A-1	1,200	544	26	660	79	2,007
A-2	1,000	453	32	812	84	2,134
A-3	800	362	39	990	90	2,286
A-4	650	294	48	1,219	98	2,489
B-1	1,200	544	22	558	83	2,108
B-2	1,000	453	26	660	89	2,261
B-3	800	362	32	812	96	2,438
B-4	650	294	39	990	106	2,692

[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
Dimensions are for reference only and subject to change without notice.

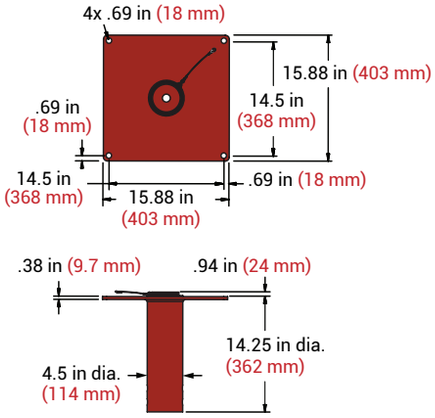
Ensign 1000 Flush-Mount Base

5BF10 5BF10S 5BF10X
5BF10G 5BF10S316

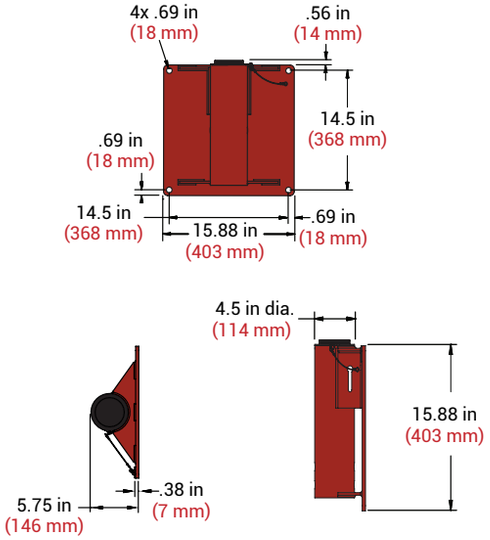
Ensign 1000 Wall-Mount Base

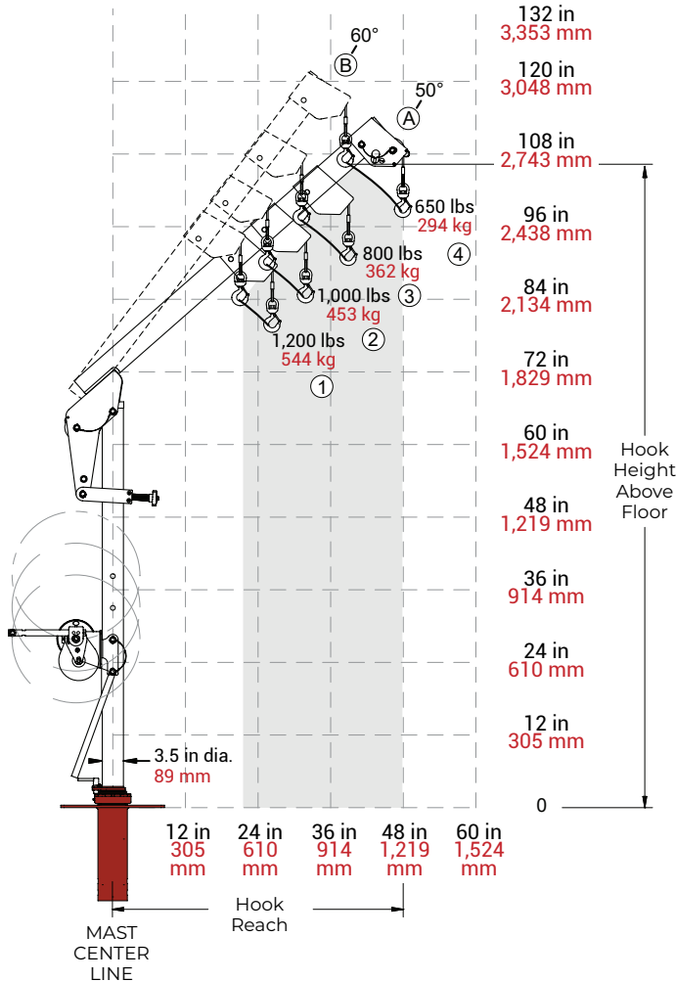
5BW10 5BW10S 5BW10X
5BW10G 5BW10S316

Flush-Mount Base



Wall-Mount Base





COMMANDER® 500
PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PT5-M1	up to 650 lb capacity with M4022PB spur gear hand winch—powder-coat crane	102	46
5PT5G-M1	up to 650 lb capacity with M4022PB spur gear hand winch—galvanized crane	102	46
5PT5-M2	up to 650 lb capacity with 4WM2 worm gear hand winch—powder-coat crane	123	56
5PT5G-M2	up to 650 lb capacity with 4WM2 worm gear hand winch—galvanized crane	123	56
5PT5S-M3	up to 650 lb capacity with M4042PBSS spur gear hand winch—stainless-steel crane	110	50
5PT5-E2	up to 650 lb capacity with 4WP2 electric winch—powder-coat crane	158	72
Crane Only			
5PT5	up to 650 lb capacity—base model—powder-coat finish	86	39
5PT5G	up to 650 lb capacity—base model—galvanized finish	86	39
5PT5S	up to 650 lb capacity—base model—304 stainless-steel finish	86	39
5PT5S316	up to 650 lb capacity—base model—316 stainless-steel finish	86	39
5PT5X	up to 650 lb capacity—base model—epoxy-gray finish	86	39
Winch Only			
M1	M4022PB—spur gear hand winch only—clear zinc coating	17	8
M2	4WM2—worm gear hand winch only—powder coat	42	19
M2X	4WM2EGRA—worm gear hand winch only—epoxy gray	42	19
M3	M4042PBSS—spur gear hand winch only—stainless steel	24	11
E2	4WP2 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DCEGRA electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket (flush-mount), or wall-mount style.

Wheel base for floor crane operation. Base includes stationary front wheels and rear locking caster wheels for 360° maneuverability. See Model 5BR5.

IMPORTANT: Base installation is the customer's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Finish	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP5	5BF5	5BW5	5BR5	5BE5-15
Galvanized	5BP5G	5BF5G	5BW5G	—	5BE5-15G
304 Stainless Steel	5BP5S	5BF5S	5BW5S	—	5BE5-15S
316 Stainless Steel	5BP5S316	5BF5S316	5BW5S316	—	5BE5-15S316
Epoxy Paint	5BP5X	5BF5X	5BW5X	5BR5X	5BE5-15X
Approximate Ship Weight	21 lbs (9.5 kg)	21 lbs 9.5 kg)	23 lbs (10.4 kg)	77 lbs (35 kg)	17 lbs (7.7) kg

Wire Rope Assemblies—sold separately

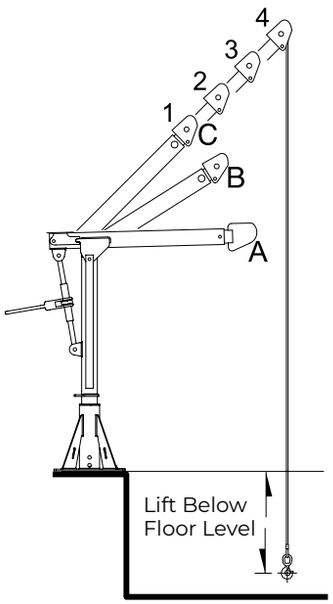
Galvanized or stainless steel wire rope assemblies with swivel hook and latch complete with swaged-ball fitting to work with the quick-disconnect anchor on the winch. See wire rope page for stainless steel and additional wire rope options.

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA1920NS	WA2520NS	WS1920NS	WS2520NS
28	8.5	WA1928NS	WA2528NS	WS1928NS	WS2528NS
36	10.9	WA1936NS	WA2536NS	WS1936NS	WS2536NS
45	13.7	WA1945NS	WA2545NS	WS1945NS	WS2545NS
60	18.2	WA1960NS	WA2560NS	WS1960NS	WS2560NS
75	22.8	WA1975NS	WA2575NS	WA1975NS	WS2575NS
90	27.4	WA1990NS	—	WA1990NS	—

Commander 500
Lift Below Floor[2] Level

Lift Below Floor[1]				Wire Rope Diameter		Wire Rope Length[3]		Winch Configurations Maximum Winch Rating									
Minimum (C4)		Maximum (C1)						M1		M2		M3		E2		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
2	0.6	7	2.1	3/16"	5	20	6.0	650	294	–	–	650	294	–	–	650	294
10	3.0	15	4.5	3/16"	5	28	8.5	650	294	–	–	650	294	–	–	650	294
18	5.4	23	7.0	3/16"	5	36	10.9	650	294	–	–	650	294	–	–	650	294
27	8.2	32	9.7	3/16"	5	45	13.7	650	294	–	–	650	294	–	–	650	294
42	12.8	47	14.3	3/16"	5	60	18.2	–	–	–	–	650	294	–	–	650	294
57	17.3	62	18.8	3/16"	5	75	22.8	–	–	–	–	650	294	–	–	650	294
72	21.9	77	23.4	3/16"	5	90	27.4	–	–	–	–	640	290	–	–	650	294
102	31.0	107	32.6	3/16"	5	120	36.5	–	–	–	–	–	–	–	–	650	294
2	0.6	7	2.1	1/4"	6	20	6.0	–	–	650	294	650	294	650	294	650	294
10	3.0	15	4.5	1/4"	6	28	8.5	–	–	650	294	650	294	650	294	650	294
18	5.4	23	7.0	1/4"	6	36	10.9	–	–	650	294	650	294	650	294	650	294
27	8.2	32	9.7	1/4"	6	45	13.7	–	–	650	294	650	294	650	294	650	294
42	12.8	47	14.3	1/4"	6	60	18.2	–	–	650	294	600	272	650	294	650	294
57	17.3	62	18.8	1/4"	6	75	22.8	–	–	650	294		–	650	294	650	294
72	21.9	77	23.4	1/4"	6	90	27.4	–	–	–	–	–	–	–	–	650	294

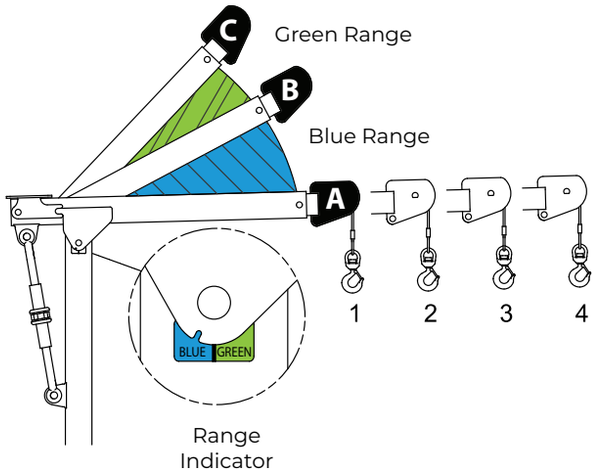
[1] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.
[2] Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
[3] Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.



Winch Configurations

Commander 500
Performance Ratings[2]

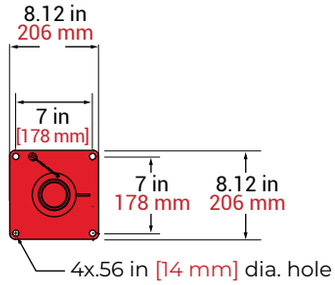
	Boom Position	Load Rating (lb)	Load Rating (kg)
BLUE RANGE		(lb)	(kg)
	A-1	550	250
	A-2	425	190
	A-3	350	160
	A-4	300	135
GREEN RANGE	B-1	650	300
	B-2	525	235
	B-3	425	190
	B-4	350	160
	C-1	650	300
	C-2	525	235
	C-3	425	190
	C-4	350	160

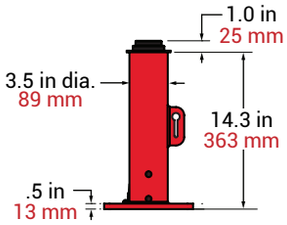


Commander 500 with Pedestal Base
Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	42	1,066
A-2	46	1,168	42	1,066
A-3	56	1,422	42	1,066
A-4	66	1,676	42	1,066
B-1	29	736	56	1,422
B-2	38	965	60	1,524
B-3	47	1,193	65	1,651
B-4	56	1,422	69	1,752
C-1	23	584	64	1,625
C-2	30	762	71	1,803
C-3	37	940	78	1,981
C-4	44	1,117	85	2,159

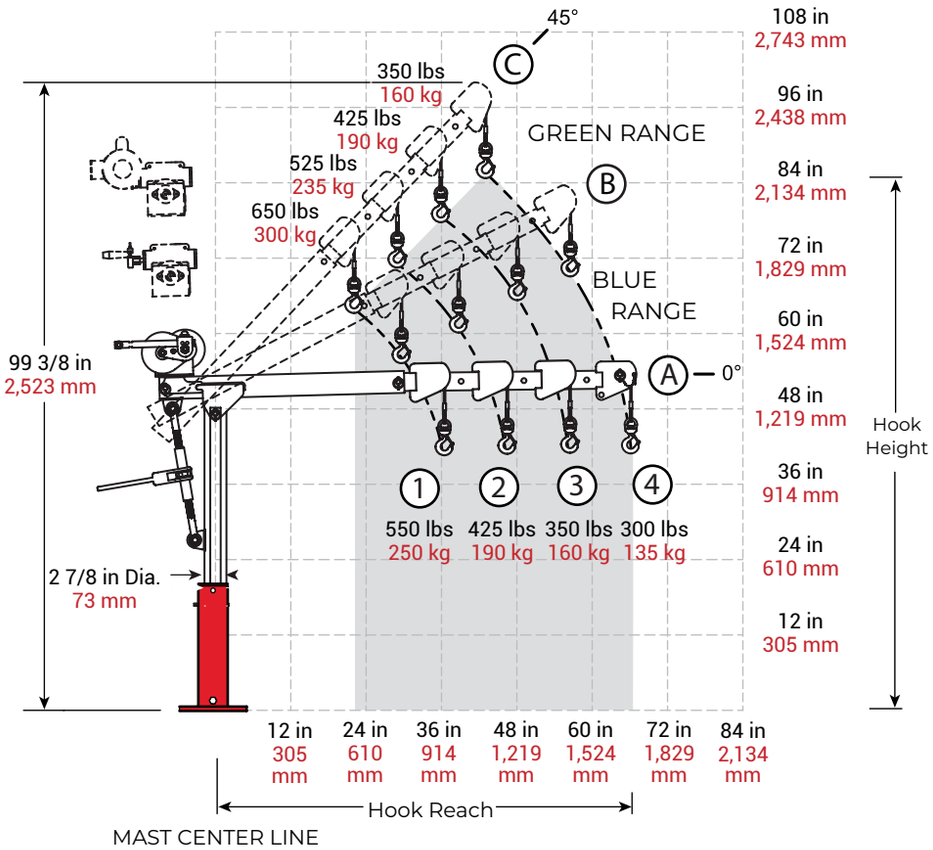
Dimensions are for reference only and subject to change without notice.





Commander 500 Pedestal Base

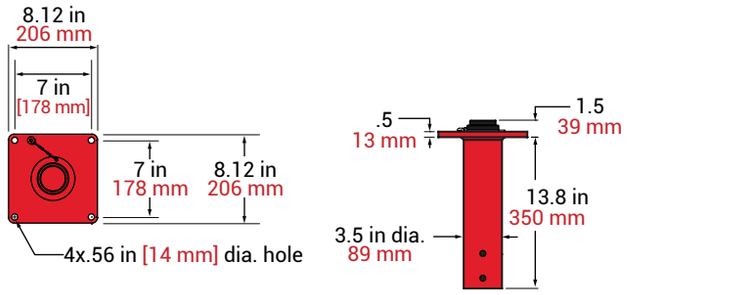
5BP5 5BP5S 5BP5X
5BP5G 5BP5S316



Commander 500 with Flush- or Wall-Mount Base Reach & Height Above Floor

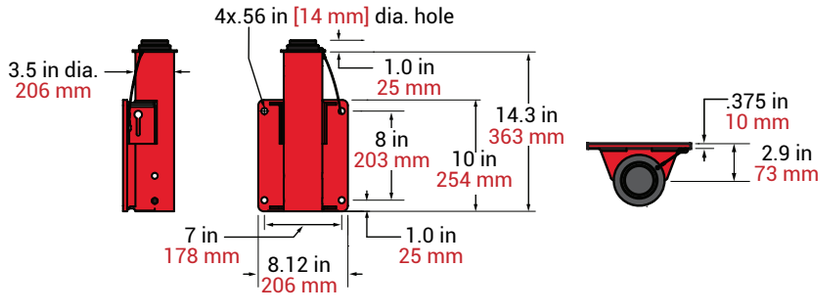
Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	28	711
A-2	46	1,168	28	711
A-3	56	1,422	28	711
A-4	66	1,676	28	711
B-1	30	762	42	1,066
B-2	38	965	46	1,168
B-3	46	1,168	51	1,295
B-4	54	1,371	55	1,397
C-1	23	584	50	1,270
C-2	29	736	57	1,447
C-3	36	914	63	1,600
C-4	42	1,066	70	1,778

[1] Dimensions are for reference only and subject to change without notice.



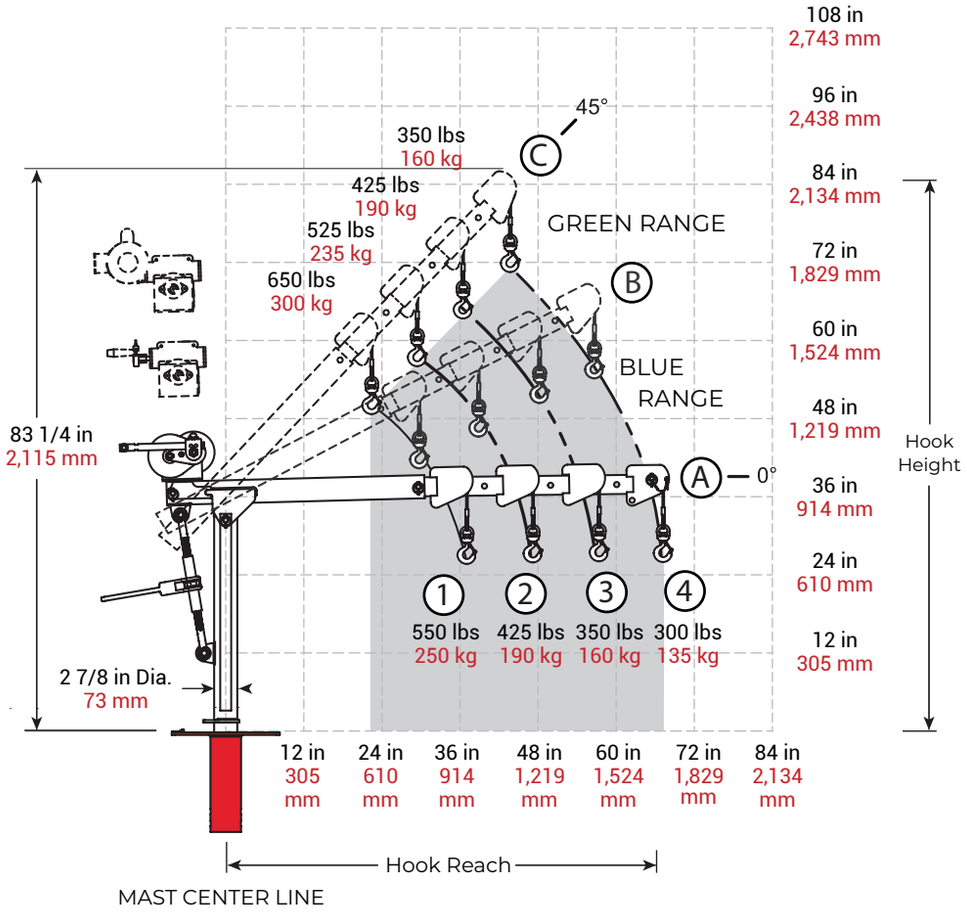
Commander 500 Flush-Mount Base

5BF5 5BF5S 5BF5X
5BF5G 5BF5S316



Commander 500 Wall-Mount Base

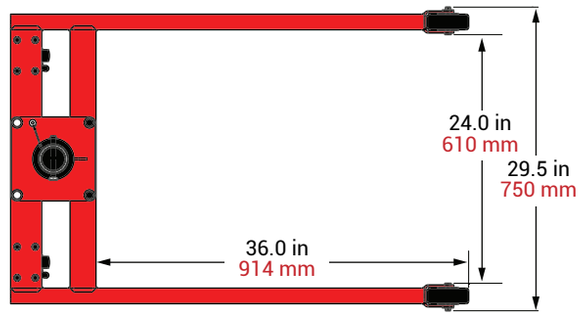
5BW5 5BW5S 5BW5X
5BW5G 5BW5S316

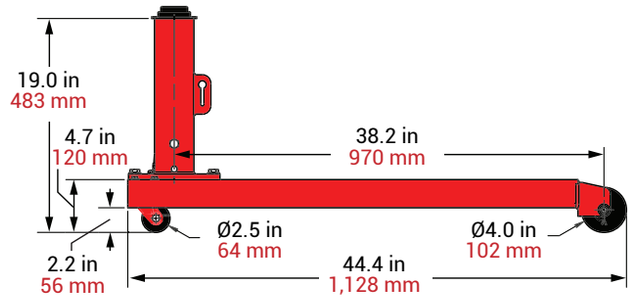


Commander 500 with Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	46	1,168
A-2	46	1,168	46	1,168
B-1	30	762	60	1,524
B-2	38	965	64	1,625
C-1	23	584	68	1,727
C-2	29	736	75	1,905

Dimensions are for reference only and subject to change without notice.



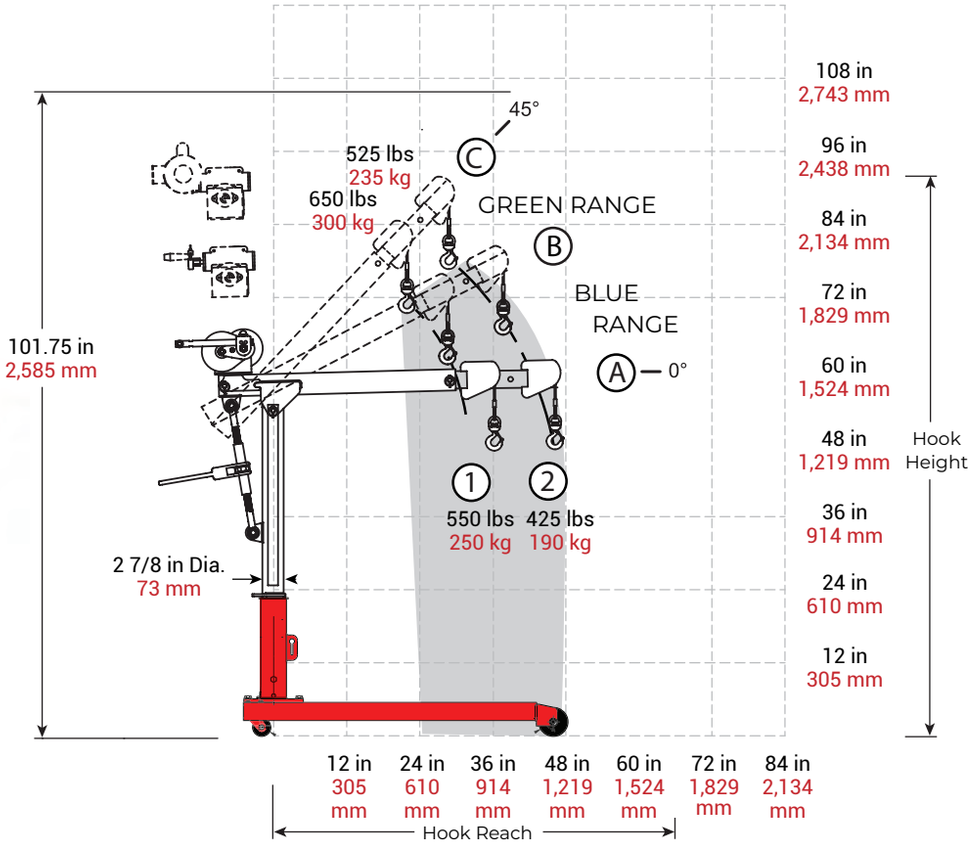


Commander 5000 Wheel Base Load Ratings

Boom Position	Load Rating (lb)	Load Rating (kg)
1	SEE LOAD RATING ON CRANE	
2		
3	DO NOT USE	
4		

Dimensions are for reference only and subject to change without notice.

IMPORTANT:
Crane DOES NOT rotate when assembled in 5BR wheel base.



COMMANDER® 1000
PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PT10M1	up to 12,00 lb capacity with M4312PB spur gear hand winch—powder-coat crane	150	68
5PT10GM1	up to 12,00 lb capacity with M4312PB spur gear hand winch—galvanized crane	150	68
5PT10M2	up to 12,00 lb capacity with 4WM2 worm gear hand winch—powder-coat crane	164	74
5PT10GM2	up to 12,00 lb capacity with 4WM2 worm gear hand winch—galvanized crane	164	74
5PT10SM3	up to 12,00 lb capacity with M4312PBSS spur gear hand winch—stainless-steel crane	150	68
5PT10E2	up to 12,00 lb capacity with 4WP2 electric winch—powder-coat crane	207	94
Crane Only			
5PT10	up to 12,00 lb capacity—base model—powder-coat finish	122	55
5PT10G	up to 12,00 lb capacity—base model—galvanized finish	122	55
5PT10S	up to 12,00 lb capacity—base model—304 stainless-steel finish	122	55
5PT10S316	up to 12,00 lb capacity—base model—316 stainless-steel finish	122	55
5PT10X	up to 12,00 lb capacity—base model—gray-epoxy finish	122	55
Winch Only			
M1	M4312PB—spur gear hand winch only—zinc plated	28	13
M2	4WM2—worm gear hand winch only—powder coat	42	19
M2X	4WM2EGRA—worm gear hand winch only—epoxy gray	42	19
M3	M4312PBSS—spur gear hand winch only—stainless steel	28	13
E2	4WP2 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	85	39
E4	4777 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	110	50
E4X	4777EGRA electric winch—115/1/60 VAC with 6 ft pendant control—epoxy gray	110	50
E4DC	4777DC electric winch—12 volt DC with 10 ft pendant control—enamel	105	48
E4DCX	4777DC electric winch—12 volt DC with 10 ft pendant control—epoxy gray	105	48

Independent Bases—sold separately

Pedestal, socket, or wall-mount style.

Wheel base for floor crane operation. Base legs adjust in length and width. See Model 5BR10.

IMPORTANT: Base installation is the customer's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Finish	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP10	5BF10	5BW10	5BR10	5BE1015
Galvanized	5BP10G	5BF10G	5BW10G	—	5BE1015G
304 Stainless Steel	5BP10S	5BF10S	5BW10S	—	5BE1015S
316 Stainless Steel	5BP10S316	5BF10S316	5BW10S316	—	5BE1015S316
Epoxy Paint	5BP10X	5BF10X	5BW10X	5BR10X	5BE1015X
Approximate Ship Weight	52 lbs (24 kg)	44 lbs (20 kg)	48 lbs (22 kg)	285 lbs (130 kg)	—

Wire Rope Assemblies—sold separately

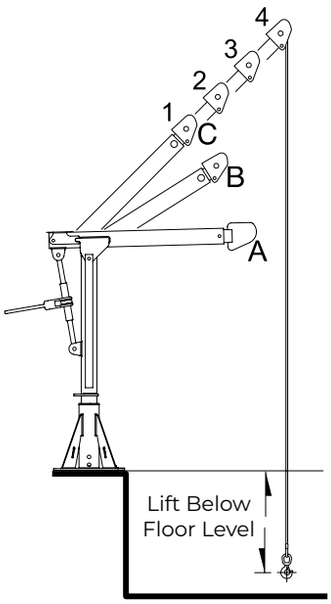
Galvanized or stainless steel for wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. 316 stainless also available. Please contact Thern.

Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)	3/16" Dia. (4.8 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA1920NS	WA2520NS	WS1920NS	WS2520NS
28	8.5	WA1928NS	WA2528NS	WS1928NS	WS2528NS
36	10.9	WA1936NS	WA2536NS	WS1936NS	WS2536NS
45	13.7	WA1945NS	WA2545NS	WS1945NS	WS2545NS
60	18.2	WA1960NS	WA2560NS	WS1960NS	WS2560NS
75	22.8	WA1975NS	WA2575NS	WA1975NS	WS2575NS
90	27.4	WA1990NS	—	WA1990NS	—

Commander 1000
Lift Below Floor[2] Level

Lift Below Floor[1]				Wire Rope Diameter		Wire Rope Length[3]		Winch Configurations Maximum Winch Rating									
Minimum (C4)		Maximum (C1)						M1		M2		M3		E2		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
2	0.6	7	2.1	3/16"	5	20	6.0	1,200	544	–	–	1,200	544	–	–	1,200	544
10	3.0	15	4.5	3/16"	5	28	8.5	1,200	544	–	–	1,200	544	–	–	1,200	544
18	5.4	23	7.0	3/16"	5	36	10.9	1,200	544	–	–	1,200	544	–	–	1,200	544
27	8.2	32	9.7	3/16"	5	45	13.7	1,200	544	–	–	1,200	544	–	–	1,200	544
42	12.8	47	14.3	3/16"	5	60	18.2	1,200	544	–	–	1,200	544	–	–	1,200	544
57	17.3	62	18.8	3/16"	5	75	22.8	1,200	544	–	–	1,200	544	–	–	1,200	544
72	21.9	77	23.4	3/16"	5	90	27.4	1,200	544	–	–	1,200	544	–	–	1,200	544
102	31.0	107	32.6	3/16"	5	120	36.5	–	–	–	–	–	–	–	–	1,200	544
2	0.6	7	2.1	1/4"	6	20	6.0	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
10	3.0	15	4.5	1/4"	6	28	8.5	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
18	5.4	23	7.0	1/4"	6	36	10.9	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
27	8.2	32	9.7	1/4"	6	45	13.7	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
42	12.8	47	14.3	1/4"	6	60	18.2	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
57	17.3	62	18.8	1/4"	6	75	22.8	–	–	1,200	544	–	–	1,200	544	1,200	544
72	21.9	77	23.4	1/4"	6	90	27.4	–	–	–	–	–	–	–	–	1,200	544
102	31.0	107	32.6	1/4"	6	120	36.5	–	–	–	–	–	–	–	–	–	–
2	0.6	7	2.1	5/16"	8	20	6.0	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
10	3.0	15	4.5	5/16"	8	28	8.5	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
18	5.4	23	7.0	5/16"	8	36	10.9	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
27	8.2	32	9.7	5/16"	8	45	13.7	1,200	544	1,200	544	1,200	544	1,200	544	1,200	544
42	12.8	47	14.3	5/16"	8	60	18.2	–	–	–	–	–	–	–	–	1,200	544

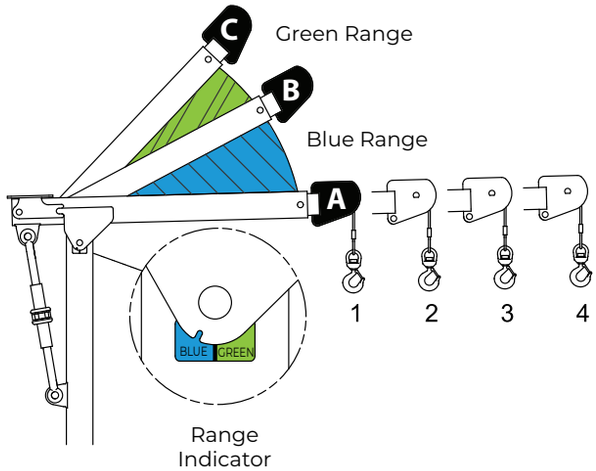
[1] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.
[2] Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
[3] Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.



Winch Configurations

Commander 1000
Performance Ratings[2]

	Boom Position	Load Rating (lb)	Load Rating (kg)
		(lb)	(kg)
BLUE RANGE	A-1	1,000	453
	A-2	800	362
	A-3	650	294
	A-4	550	249
	B-1	1,200	544
GREEN RANGE	B-2	950	430
	B-3	750	340
	B-4	650	294
	C-1	1,200	544
	C-2	950	430
	C-3	750	340
	C-4	650	294

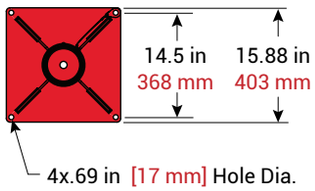


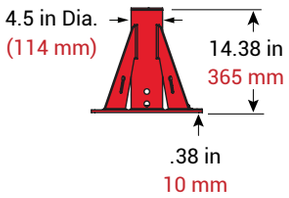
Commander 1000 with Pedestal Base
Reach & Height Above Floor[1]

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	42	1,066
A-2	46	1,168	42	1,066
A-3	56	1,422	42	1,066
A-4	66	1,676	42	1,066
B-1	29	736	56	1,422
B-2	38	965	60	1,524
B-3	47	1,193	65	1,651
B-4	56	1,422	69	1,752
C-1	22	558	64	1,625
C-2	29	736	71	1,803
C-3	36	914	78	1,981
C-4	43	1,092	85	2,159

[1] Performance Characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

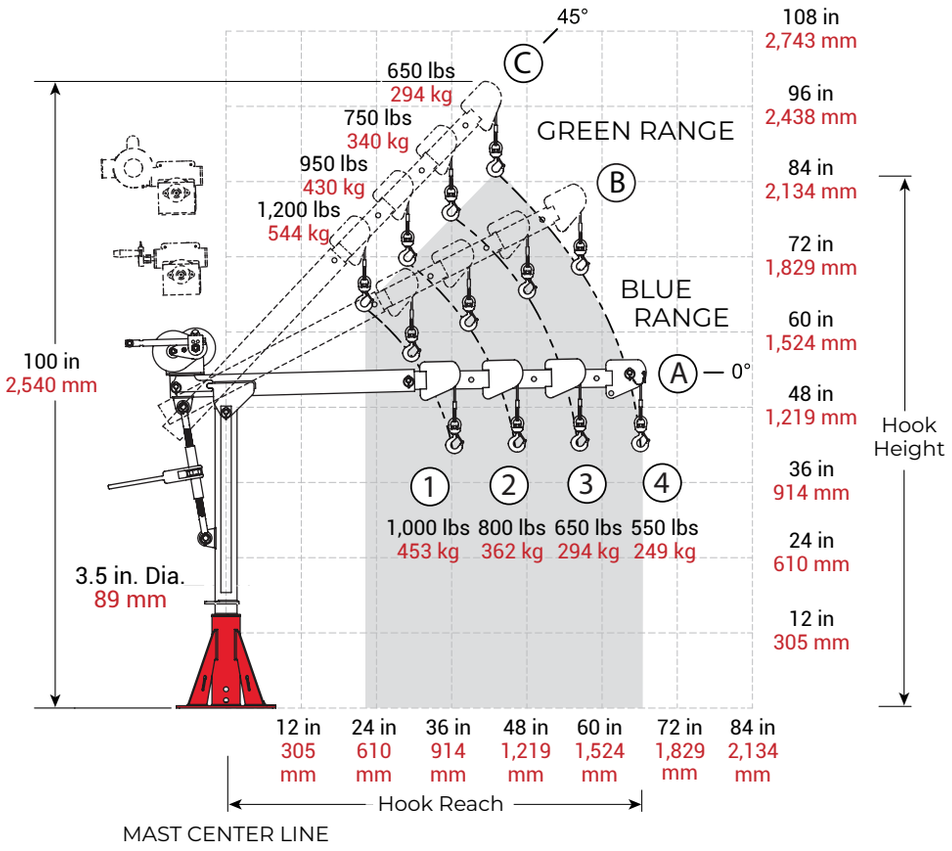
Dimensions are for reference only and subject to change without notice.





Commander 1000 Pedestal Base

5BP10 5BP10S 5BP10X
5BP10G 5BP10S316

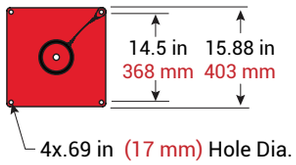


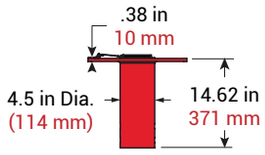
Commander 1000 with Flush- or Wall-Mount Base Reach & Height Above Floor[1]

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	28	711
A-2	46	1,168	28	711
A-3	56	1,422	28	711
A-4	66	1,676	28	711
B-1	29	736	42	1,066
B-2	38	965	46	1,168
B-3	47	1,193	51	1,295
B-4	56	1,422	55	1,397
C-1	22	558	50	1,270
C-2	29	736	57	1,447
C-3	36	914	64	1,625
C-4	43	1,092	71	1,803

[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

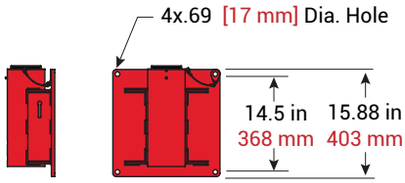
Dimensions are for reference only and subject to change without notice.

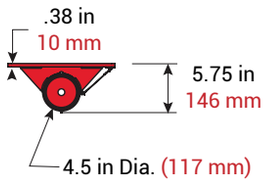




Commander 1000 Flush-Mount Base

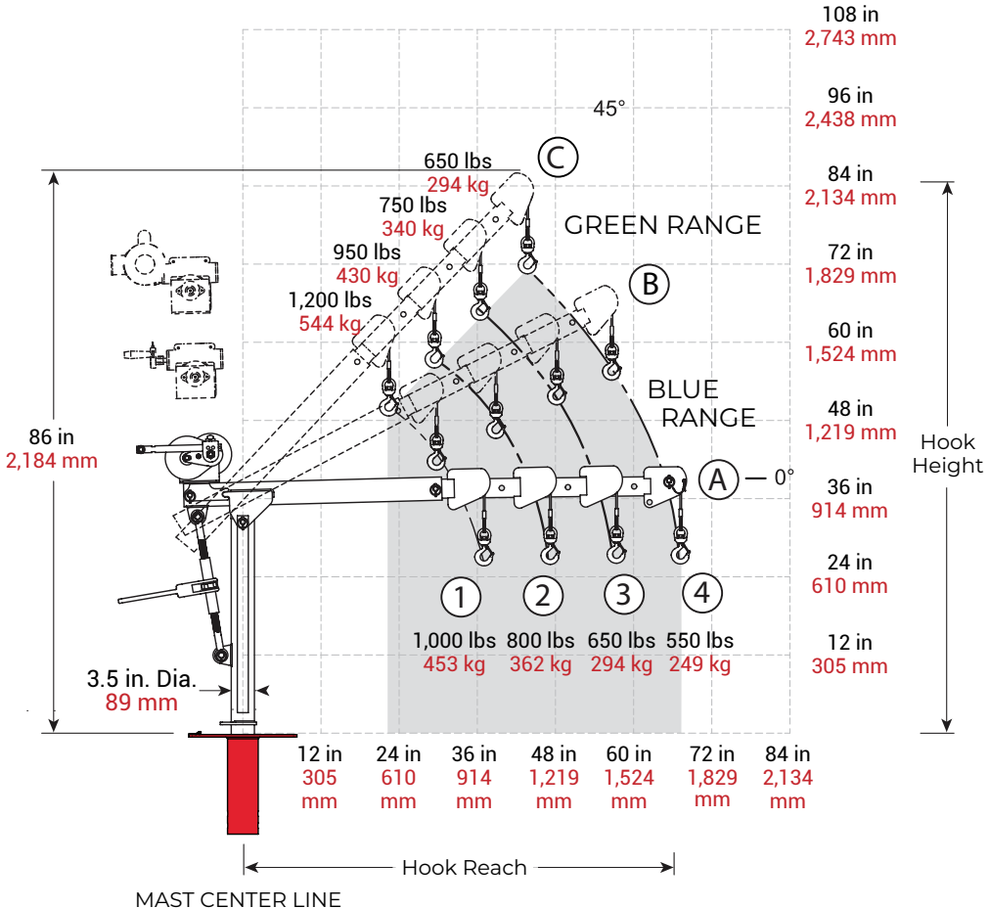
5BF10 5BF10G 5BF10S
5BF10S316 5BF10X





Commander 1000 Wall-Mount Base

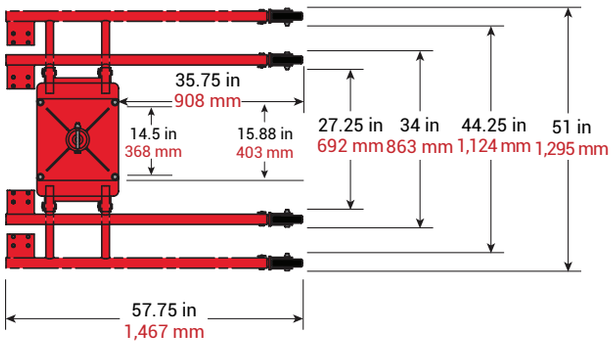
5BW10 5BW10G 5BW10S
5BW10S316 5BW10X



Commander 1000 on Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	36	914	48	1,219
A-2	46	1,168	48	1,219
A-3	56	1,422	48	1,219
A-4	66	1,676	48	1,219
B-1	29	736	62	1,574
B-2	38	965	66	1,676
B-3	47	1,193	71	1,803
B-4	56	1,422	75	1,905
C-1	22	558	70	1,778
C-2	29	736	77	1,955
C-3	36	914	84	2,133
C-4	43	1,092	91	2,311

Dimensions are for reference only and subject to change without notice.



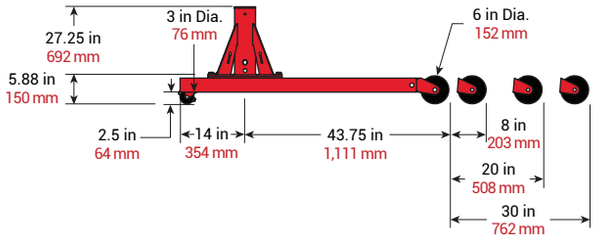
Commander 1000 Wheel Base

5BR10 5BR10X

Commander 1000 Wheel Base Load Ratings

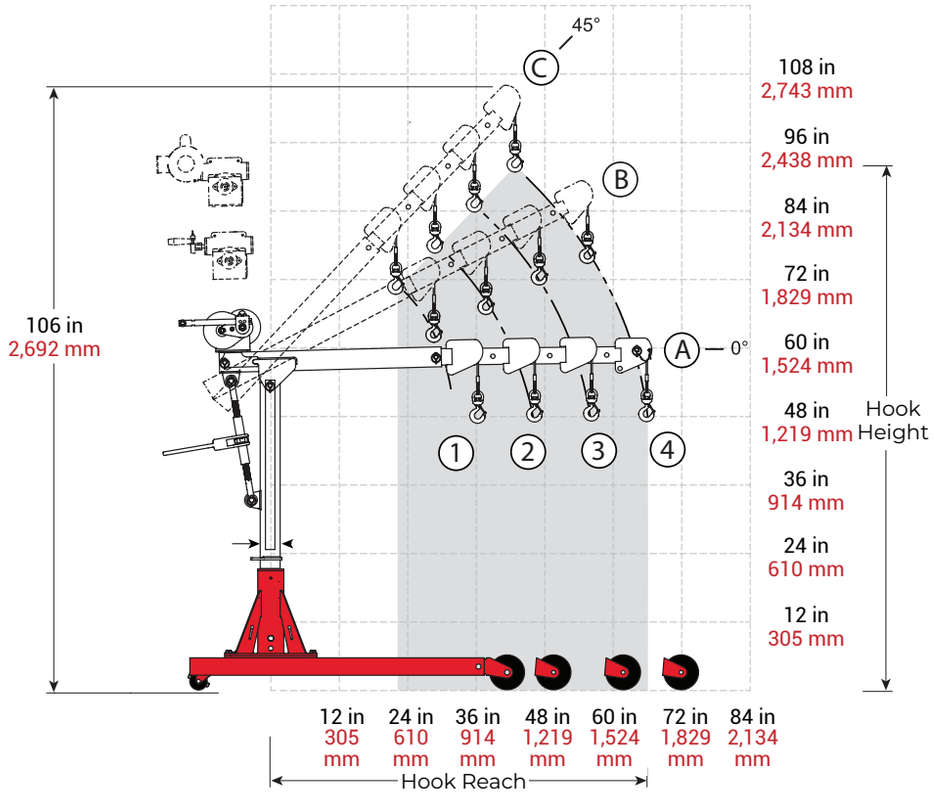
Boom Position	Leg Pos. 1		Leg Pos. 2		Leg Pos. 3		Leg Pos. 4	
	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)
A/B-1	SEE LOAD RATINGS ON CRAN E							
A/B-2								
A/B-3	DO NOT USE							
A/B-4	DO NOT USE							

Dimensions are for reference only and subject to change without notice.



Commander 1000 on Wheel Base

IMPORTANT:
Crane DOES NOT rotate when assembled in 5BR10 wheel base.



COMMANDER® 2000
PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PT20-M1	up to 2,000 lb capacity with M4312PB spur gear hand winch—powder-coat crane	241	109
5PT20G-M1	up to 2,000 lb capacity with M4312PB spur gear hand winch—galvanized crane	241	109
5PT20-M2	up to 2,000 lb capacity with 4WM2 worm gear hand winch—powder-coat crane	255	116
5PT20G-M2	up to 2,000 lb capacity with 4WM2 worm gear hand winch—galvanized crane	255	116
5PT20S-M3	up to 2,000 lb capacity with M4312PBSS spur gear hand winch—stainless-steel crane	241	109
5PT20-E2	up to 2,000 lb capacity with 4WP2 electric winch—powder-coat crane	298	135
Crane Only			
5PT20	up to 2,000 lb capacity—base model—powder-coat finish	213	97
5PT20G	up to 2,000 lb capacity—base model—galvanized finish	213	97
5PT20S	up to 2,000 lb capacity—base model—304 stainless-steel finish	213	97
5PT20S316	up to 2,000 lb capacity—base model—316 stainless-steel finish	213	97
5PT20X	up to 2,000 lb capacity—base model—gray-epoxy finish	213	97
Winch Only			
M1	M4312PB—spur gear hand winch only—zinc plated	28	13
M2	4WM2—worm gear hand winch only—powder coat	42	19
M2X	4WM2EGRA—worm gear hand winch only—gray epoxy	42	19
M3	M4312PBSS—spur gear hand winch only—stainless steel	28	13
E2	4WP2 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E2X	4WP2EGRA electric winch—115/1/60 VAC with 6 ft pendant control—gray epoxy	85	39
E3X	4777 electric winch—115/1/60 VAC with 6 ft pendant control—enamel	85	39
E4	4777EGRA electric winch—115/1/60 VAC with 6 ft pendant control—gray epoxy	110	50
E4X	4777DC electric winch—12 volt DC with 10 ft pendant control—enamel	110	50
E4DC	4777DC electric winch—12 volt DC with 10 ft pendant control—gray epoxy	105	48
E4DCX	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy	105	48

Independent Bases—sold separately

Pedestal, socket, or wall-mount style.

Wheel base for floor cane operation. Base legs adjust in length and width.

IMPORTANT: Base installation is the customer's responsibility. Thern recommends consulting a civil engineer or other qualified pofessional. Contact Thern for installation guidelines.

Finish	Pedestal	Flush	Wall	Wheel	Extension
Powder Coat Paint	5BP20	5BF20	5BW20	5BR20	5BE20-15
Galvanized	5BP20G	5BF20G	5BW20G	—	5BE20-15G
304 Stainless Steel	5BP20S	5BF20S	5BW20S	—	5BE20-15S
316 Stainless Steel	5BP20S316	5BF20S316	5BW20S316	—	5BE20-15S316
Epoxy Paint	5BP20X	5BF20X	5BW20X	5BR20X	5BE20-15X
Approximate Ship Weight	66 lbs (30 kg)	57 lbs (26 kg)	64 lbs (30 kg)	375 lbs (171 kg)	53 lbs (25 kg)

Wire Rope Assemblies—sold separately

Galvanized or stainless steel for wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. 316 stainless also available. Please contact Thern.

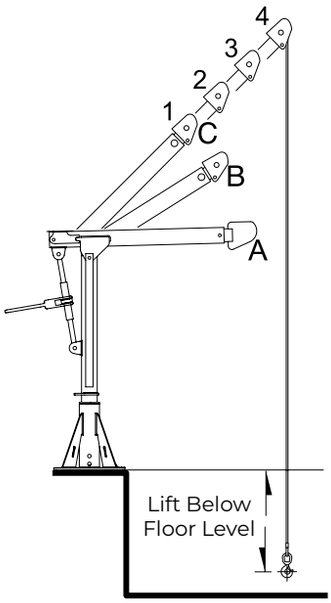
Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		1/4" Dia. (6.4 mm)	5/16" Dia. (7.9 mm)	1/4" Dia. (6.4 mm)	5/16" Dia. (7.9 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
20	6.0	WA25-20NS	WA31-20DS	WS25-20NS	WS31-20DS
28	8.5	WA25-28NS	WA31-28DS	WS25-28NS	WS31-28DS
36	10.9	WA25-36NS	WA31-36DS	WS25-36NS	WS31-36DS
45	13.7	WA25-45NS	WA31-45DS	WS25-45NS	WS31-45DS
60	18.2	WA25-60NS	WA31-60DS	WS25-60NS	WS31-60DS
75	22.8	WA25-75NS	—	WS25-75NS	—

PERFORMANCE

Commander 2000
Lift Below Floor[2] Level

Lift Below Floor[1]				Wire Rope Diameter		Wire Rope Length[3]		Winch Configurations Maximum Winch Rating									
Minimum (C4)		Maximum (C1)						M1		M2		M3		E2		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
0	0.0	5	1.5	1/4"	6	20	6.0	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907
8	2.4	13	3.9	1/4"	6	28	8.5	1,800	816	1,700	771	1,800	816	1,700	771	1,800	816
16	4.8	21	6.4	1/4"	6	36	10.9	1,800	816	1,700	771	1,800	816	1,700	771	1,600	725
25	7.6	30	9.1	1/4"	6	45	13.7	1,600	725	1,500	680	1,600	725	1,500	680	1,600	725
40	12.1	45	13.7	1/4"	6	60	18.2	1,400	635	1,300	589	1,400	635	1,300	589	1,400	635
55	16.7	60	18.2	1/4"	6	75	22.8	–	–	1,300	589	–	–	1,300	589	1,300	589
70	21.3	75	22.8	1/4"	6	90	27.4	–	–	–	–	–	–	–	–	1,300	589
100	30.4	105	32.0	1/4"	6	120	36.5	–	–	–	–	–	–	–	–	–	–
0	0.0	5	1.5	5/16"	8	20	6.0	1,900	861	1,900	861	1,900	861	1,900	861	1,300	861
8	2.4	13	3.9	5/16"	8	28	8.5	1,600	725	1,600	725	1,600	725	1,600	725	1,900	771
16	4.8	21	6.4	5/16"	8	36	10.9	1,400	635	1,400	635	1,400	635	1,400	635	1,700	680
25	7.6	30	9.1	5/16"	8	45	13.7	1,300	589	1,400	635	1,300	589	1,400	635	1,500	680
40	12.1	45	13.7	5/16"	8	60	18.2	–	–	–	–	–	–	–	–	1,500	589

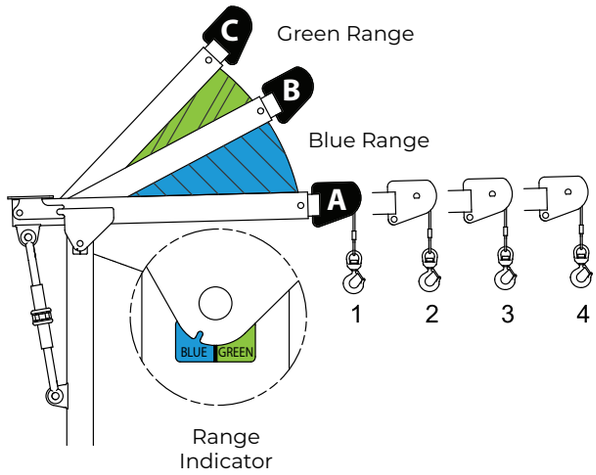
[1] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.
[2] Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
[3] Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.



Winch Configurations

Commander 2000
Performance Ratings[2]

	Boom Position	Load Rating (lb)	Load Rating (kg)
		(lb)	(kg)
BLUE RANGE	A-1	2,000	907
	A-2	1,600	725
	A-3	1,300	589
	A-4	1,100	498
	B-1	2,000	907
GREEN RANGE	B-2	1,900	861
	B-3	1,500	680
	B-4	1,300	589
	C-1	2,000	907
	C-2	1,900	861
	C-3	1,500	680
	C-4	1,300	589

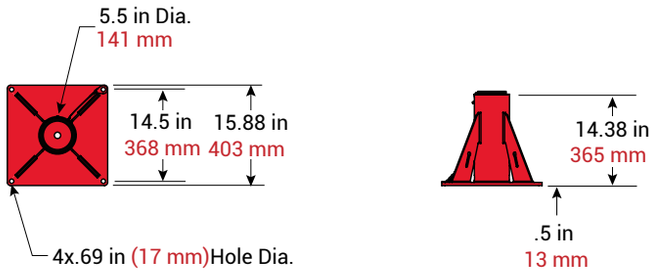


Commander 2000 with Pedestal Base
Reach & Height Above Floor[1]

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	43	1,092
A-2	58	1,473	43	1,092
A-3	70	1,778	43	1,092
A-4	82	2,082	43	1,092
B-1	37	939	61	1,549
B-2	48	1,219	67	1,701
B-3	58	1,473	72	1,828
B-4	69	1,752	78	1,981
C-1	28	711	71	1,803
C-2	36	914	80	2,032
C-3	45	1,143	88	2,235
C-4	53	1,346	97	2,463

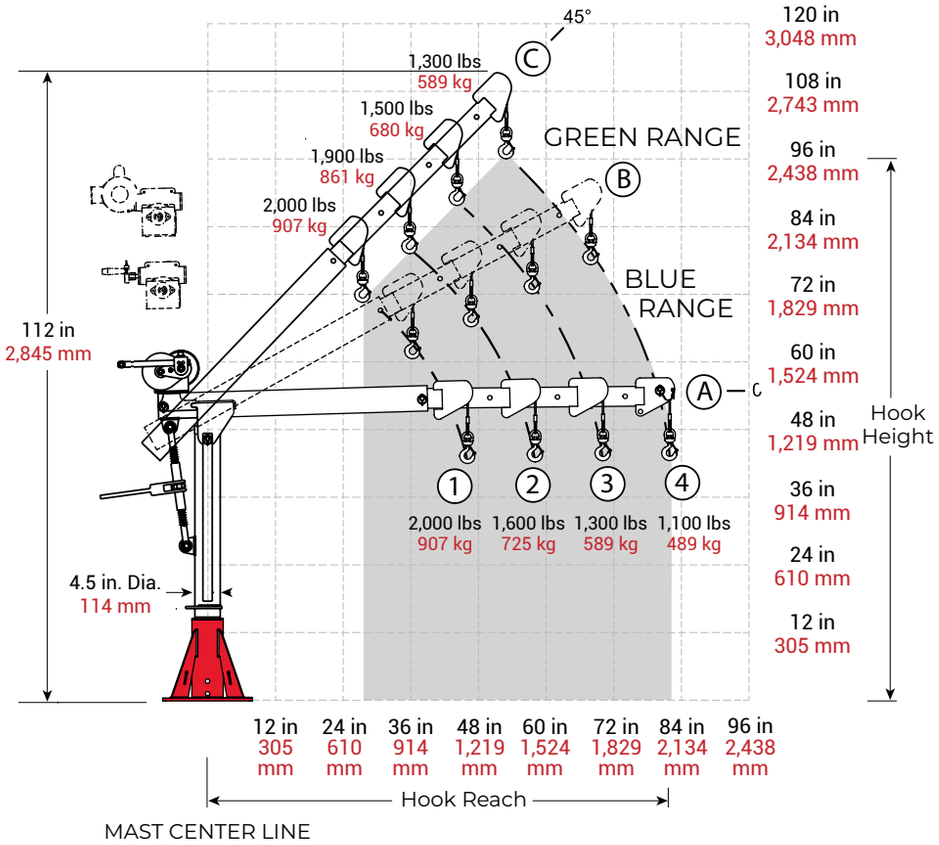
[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.



Commander 2000 Pedestal Base

5BP20 5BP20S 5BP20X
5BP20G 5BP20S316

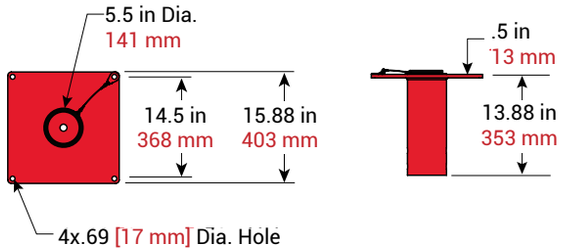


Commander 2000 with Flush- or Wall-Mount Base Reach & Height Above Floor[1]

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	29	736
A-2	58	1,473	29	736
A-3	70	1,778	29	736
A-4	82	2,082	29	736
B-1	37	939	47	1,193
B-2	48	1,219	53	1,346
B-3	58	1,473	58	1,473
B-4	69	1,752	64	1,625
C-1	28	711	57	1,447
C-2	36	914	66	1,676
C-3	45	1,143	74	1,879
C-4	53	1,346	83	2,108

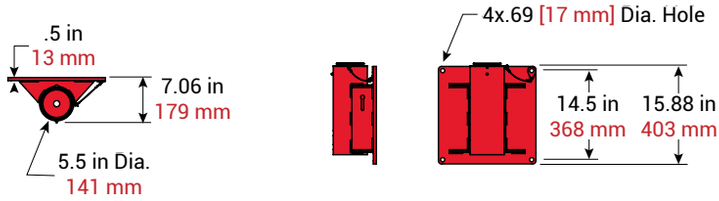
[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.



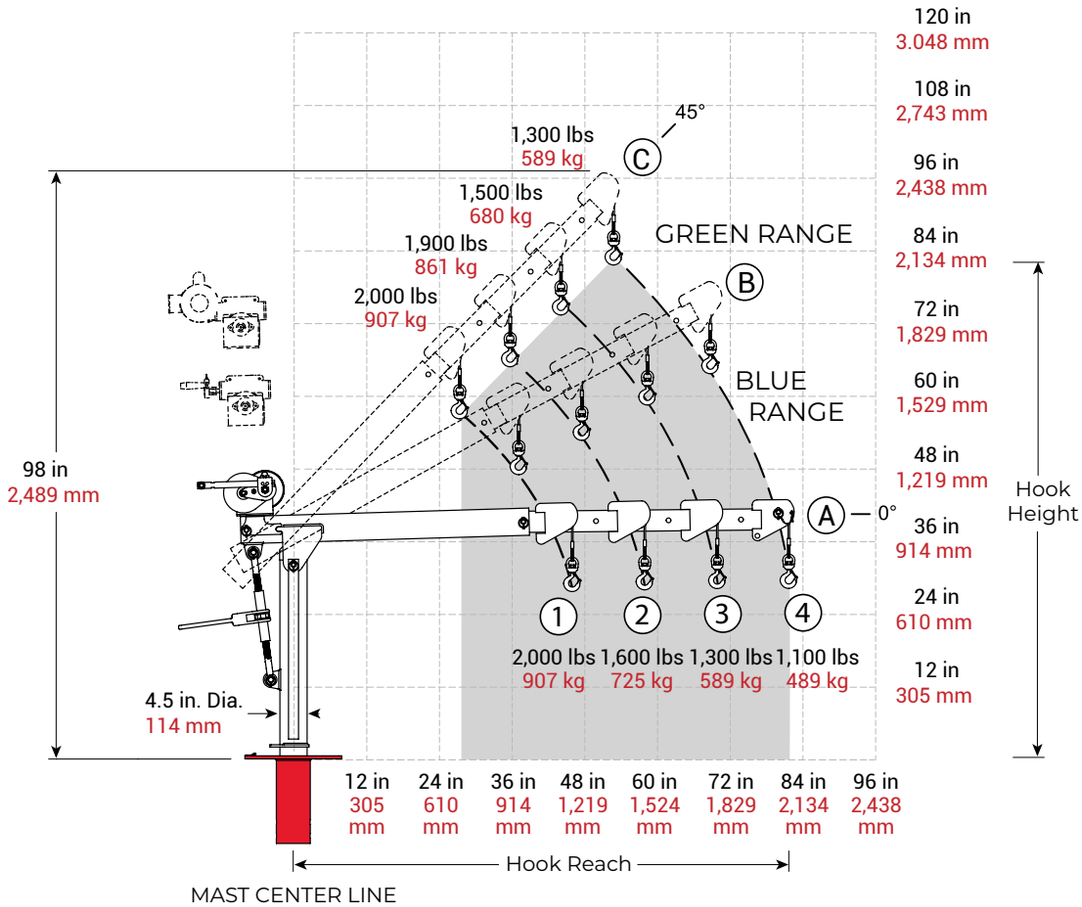
Commander 2000 Flush-Mount Base

5BW20 5BW20G 5BW20S
5BW20S316 5BW20X



Commander 2000 Wall-Mount Base

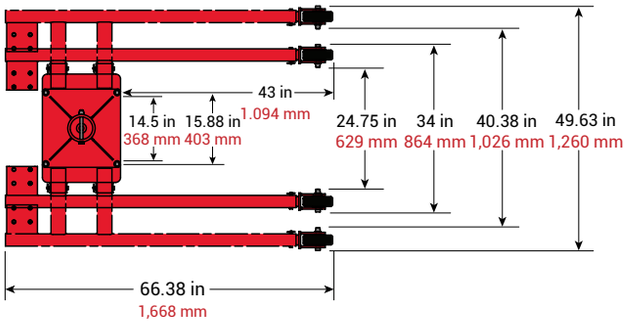
5BW20 5BW20G 5BW20S
5BW20S316 5BW20X



Commander 2000 on Wheel Base Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	50	1,270
A-2	58	1,473	50	1,270
A-3	70	1,778	50	1,270
A-4	82	2,082	50	1,270
B-1	37	939	68	1,727
B-2	48	1,219	74	1,879
B-3	58	1,473	79	2,006
B-4	69	1,752	85	2,159
C-1	28	711	78	1,981
C-2	36	914	87	2,209
C-3	45	1,143	95	2,413
C-4	53	1,346	104	2,641

Dimensions are for reference only and subject to change without notice.



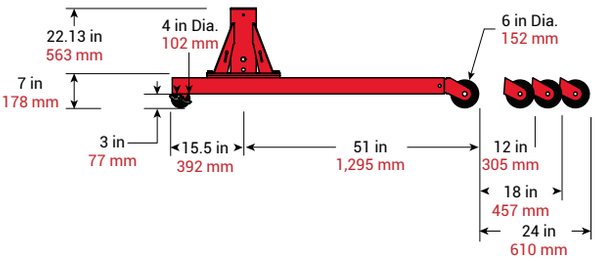
Commander 2000 Wheel Base

5BR20 5BR20X

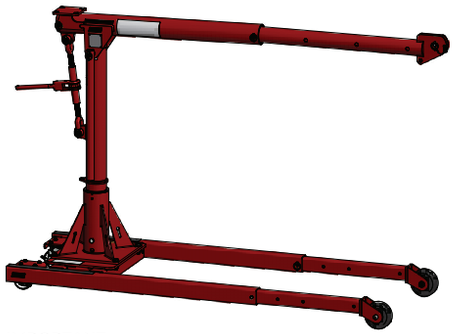
Commander 2000 Wheel Base Load Ratings

Boom Position	Leg Pos. 1		Leg Pos. 2		Leg Pos. 3		Leg Pos. 4	
	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)
A/B/C-1	SEE LOAD RATINGS ON CRANE							
A/B/C-2	DO NOT USE		SEE LOAD RATINGS ON CRANE					
A/B/C-3	DO NOT USE							
A/B/C-4	DO NOT USE		DO NOT USE					

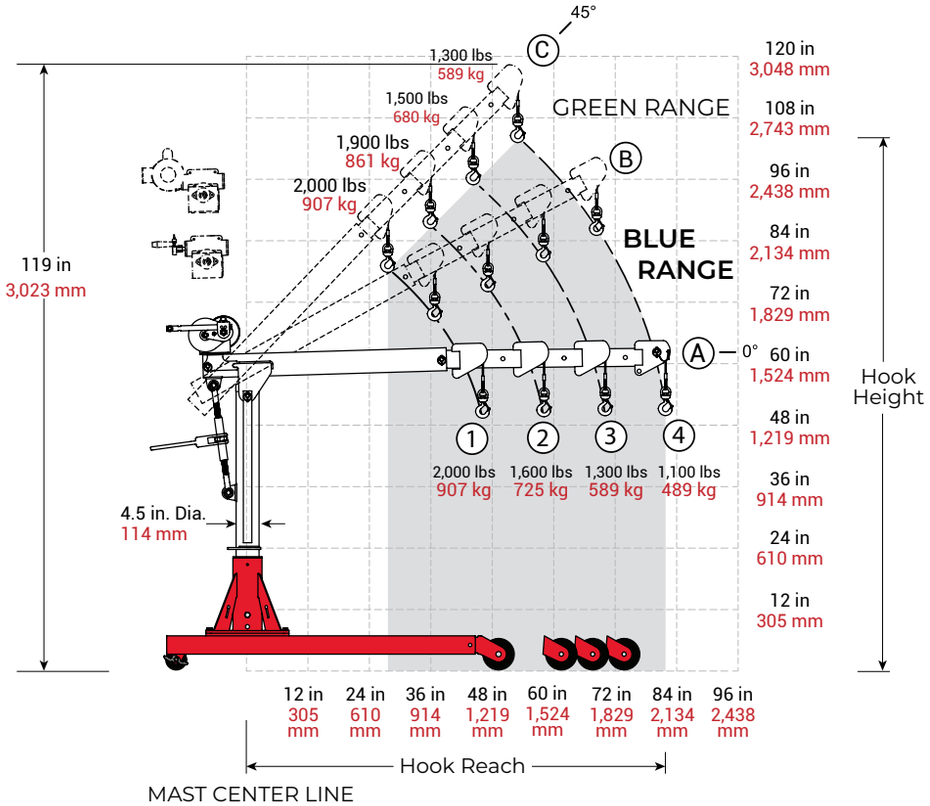
Dimensions are for reference only and subject to change without notice.



Commander 2000 on Wheel Base



IMPORTANT:
Crane DOES NOT rotate when assembled in 5BR20 wheel base.



RESCUE RATED
PORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Available Configurations			
5PT10R-M2R	up to a 1,200 lbs capacity with 4WM2R worm gear hand winch – powder-coat crane	1647	4
5PT10RS-M2R	up to a 1,200 lbs capacity with 4WM2R worm gear hand winch – stainless steel crane	1647	4
5PT10RS-M2RX	up to a 1,200 lbs capacity with epoxy 4WM2R worm gear hand winch – stainless steel crane	1647	4
5PT20R-M2R	up to 2,000 lbs capacity with 4WM2R worm gear hand winch – poweder-coat crane	2551	66
5PT20RS-M2R	up to 2,000 lbs capacity with 4WM2R worm gear hand winch – stainless steel crane	2551	66
5PT20RS-M2RX	up to 2,000 lbs capacity with epoxy 4WM2R worm gear hand winch – stainless steel crane	2551	66

Independent Bases–sold separately

Pedestal, socket, or wall-mount style.

Wheel bases are NOT used for the Rescue Rated Davit Cranes.

IMPORTANT: Base installation is the customer's responsibility. Thern recommends consulting a civil engineer or other qualified professional. Contact Thern for installation guidelines.

Pedestal

Flush

Wall Mount

Finish	Pedestal	FlushW	all
Powder Coat Paint	5BP10S	BF10	5BW10
	5BP20	5BF20	5BW20
304 Stainless Steel	5BP10S	5BF10S	5BW10S
	5BP20S	5BF20S5	BW20S
Approximate Ship Weight	66 lbs (30 kg)	57 lbs (26 kg)	64 lbs (30 kg)

Wire Rope Assemblies

Galvanized wire rope assemblies with swaged-ball fitting to work with the quick-disconnect anchor on the winch. Please contact Thern for additional information.

NOTE: Thern Rescue Rated Davit systems were designed, tested, and rated using this specific wire rope assembly. Other types of wire rope or assemblies may not meet required specifications.

Wire Rope Length		Aircraft Cable		
		1/4" Dia. (6.4 mm)	Approx. Ship Weight	
(ft)	(m)	Model No.	(lbs)	(kg)
60	18.2	WA25-60NT	9 lbs	4 kg

PERFORMANCE

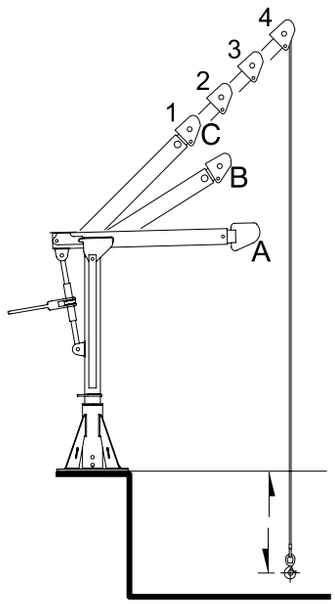
Rescue Rated Commander Series
Lift Below Floor[2] Level

Lift Below Floor [1]				Wire Rope Diameter		Wire Rope Length[3]		Winch Configuration Maximum Winch Rating	
5PT10R									
Minimum (C4)		Maximum (C1)				M2R			
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)
2	0.6	7	2.1	1/4"	6	20	6.0	1,200	545
10	3.0	15	4.5	1/4"	6	28	8.5	1,200	545
18	5.4	23	7.0	1/4"	6	36	10.9	1,200	545
27	8.2	32	9.7	1/4"	6	45	13.7	1,200	545
42	12.8	47	14.3	1/4"	6	60	18.2	1,200	545
5PT20R									
0	0.0	5	1.5	1/4"	6	20	6.0	2,000	905
8	2.4	13	3.9	1/4"	6	28	8.5	1,700	770
16	4.8	21	6.4	1/4"	6	36	10.9	1,700	770
25	7.6	30	9.1	1/4"	6	45	13.7	1,500	680
40	12.1	45	13.7	1/4"	6	60	18.2	1,300	590

[1] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.

[2] Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

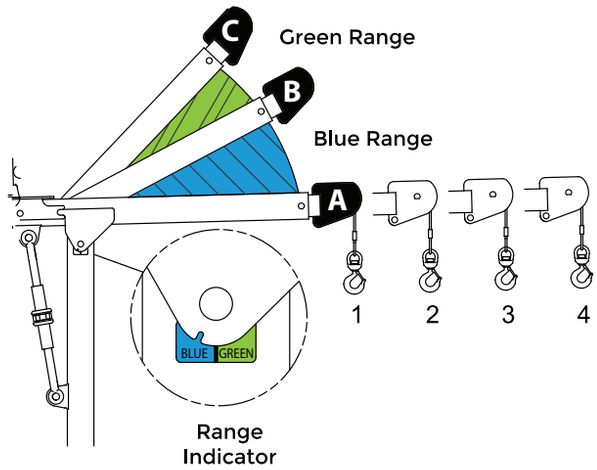
[3] Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and [316]SS wire rope is also available. Please contact the factory.



Lift Below
Floor Level

Commander 1000
Performance Ratings[2]

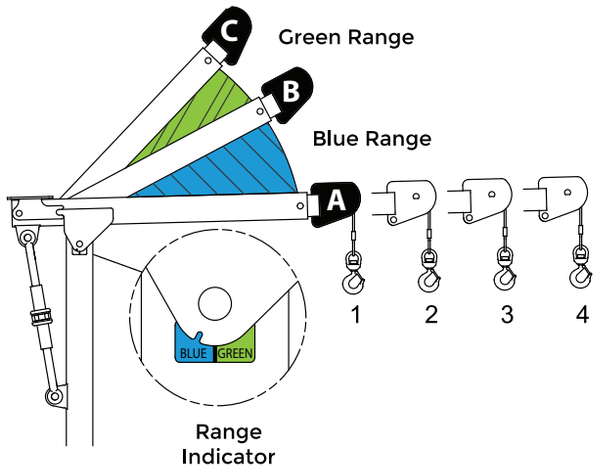
	Boom Position	Load Rating (lb)	Load Rating (kg)	Rescue Rated (lb)	Rescue Rated (kg)
BLUE RANGE	A-1	1,000	455	310	144
	A-2	800	360	-	-
	A-3	650	295	-	-
	A-4	550	250	-	-
GREEN RANGE	B-1	1,200	545	310	144
	B-2	950	430	310	144
	B-3	750	340	-	-
	B-4	650	295	-	-
	C-1	1,200	545	310	144
	C-2	950	430	310	144
	C-3	750	340	-	-
	C-4	650	295	-	-



Range
Indicator

Commander 2000
Performance Ratings[2]

	Boom Position	Load Rating (lb)	Load Rating (kg)	Rescue Rated (lb)	Rescue Rated (kg)
BLUE RANGE	A-1	2,000	905	620	282
	A-2	1,600	725	-	-
	A-3	1,300	590	-	-
	A-4	1,100	500	-	-
GREEN RANGE	B-1	2,000	905	620	282
	B-2	1,900	860	620	282
	B-3	1,500	680	-	-
	B-4	1,300	590		
	C-1	2,000	905	620	282
	C-2	1,900	860	620	282
	C-3	1,500	680	-	-
	C-4	1,300	590	-	-



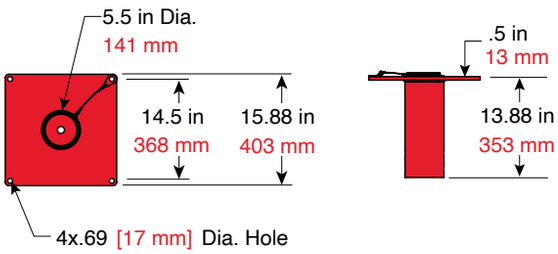
Range
Indicator

Rescue Rated Series with Pedestal Base Reach & Height Above Floor[1]

Boom Position	Hook Reach		Hook Height	
5PT10				
	(in)	(mm)	(in)	(mm)
A-1	36	914	42	1,066
A-2	46	1,168	42	1,066
A-3	56	1,422	42	1,066
A-4	66	1,676	42	1,066
B-1	29	736	56	1,422
B-2	38	965	60	1,524
B-3	47	1,193	65	1,651
B-4	56	1,422	69	1,752
C-1	22	558	64	1,625
C-2	29	736	71	1,803
C-3	36	914	78	1,981
C-4	43	1,092	85	2,159
5PT20				
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	43	1,092
A-2	58	1,473	43	1,092
A-3	70	1,778	43	1,092
A-4	82	2,082	43	1,092
B-1	37	939	61	1,549
B-2	48	1,219	67	1,701
B-3	58	1,473	72	1,828
B-4	69	1,752	78	1,981
C-1	28	711	71	1,803
C-2	36	914	80	2,032
C-3	45	1,143	88	2,235
C-4	53	1,346	97	2,463

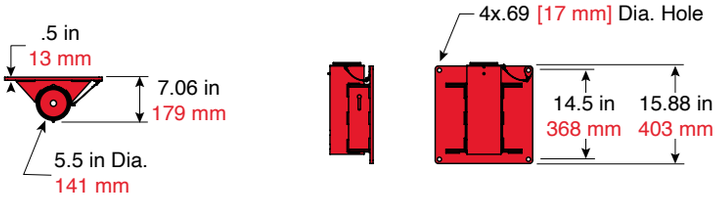
[1]Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.



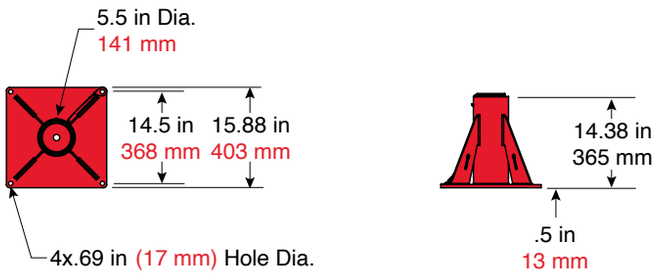
Rescue Rated Compatible Flush-Mount Base

5BF10 5BF10S 5BF20 5BF20S



Rescue Rated Compatible Wall-Mount Base

5BW10 5BW10S 5BW20 5BW20S



Rescue Rated Compatible Pedestal Base

5BP10 5BP10S
5BP20 5BP20S

Rescue Rated Series with Flush- or Wall-Mount Base Reach & Height Above Floor[1]

Boom Position	Hook Reach		Hook Height	
5PT10				
	(in)	(mm)	(in)	(mm)
A-1	36	914	28	711
A-2	46	1,168	28	711
A-3	56	1,422	28	711
A-4	66	1,676	28	711
B-1	29	736	42	1,066
B-2	38	965	46	1,168
B-3	47	1,193	51	1,295
B-4	56	1,422	55	1,397
C-1	22	558	50	1,270
C-2	29	736	57	1,447
C-3	36	914	64	1,625
C-4	43	1,092	71	1,803
5PT20				
	(in)	(mm)	(in)	(mm)
A-1	46	1,168	29	736
A-2	58	1,473	29	736
A-3	70	1,778	29	736
A-4	82	2,082	29	736
B-1	37	939	47	1,193
B-2	48	1,219	53	1,346
B-3	58	1,473	58	1,473
B-4	69	1,752	64	1,625
C-1	28	711	57	1,447
C-2	36	914	66	1,676
C-3	45	1,143	74	1,879
C-4	53	1,346	83	2,108

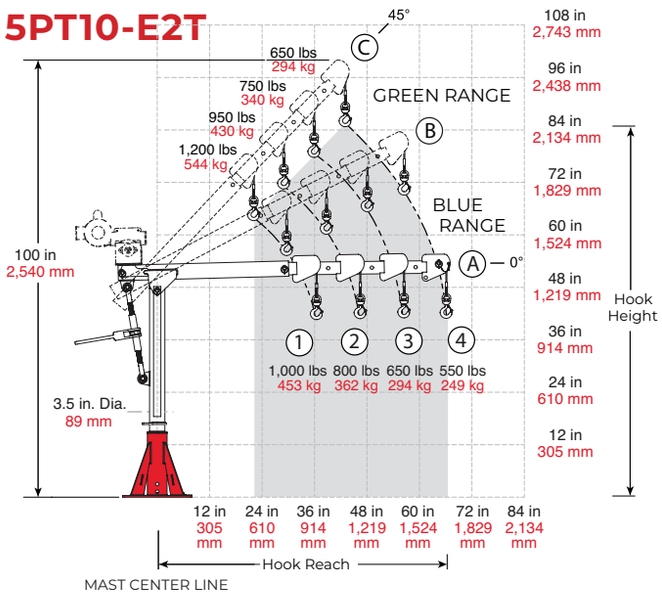
[1]Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

Dimensions are for reference only and subject to change without notice.

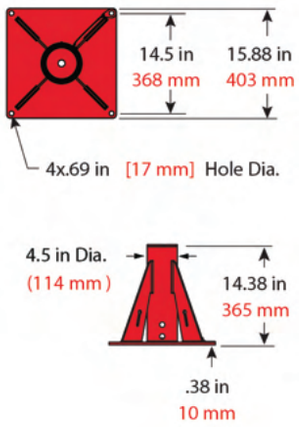
LONG LIFT CRANE
CONFIGURATIONS

PERFORMANCE

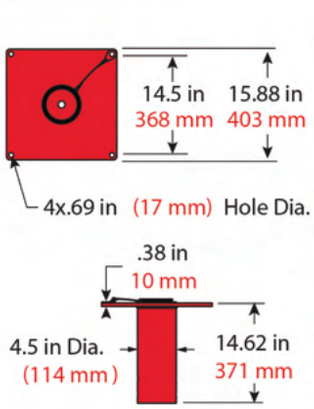
5PT10-E2T



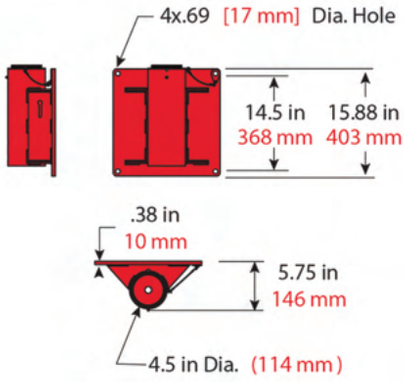
Pedestal Base 5BP10



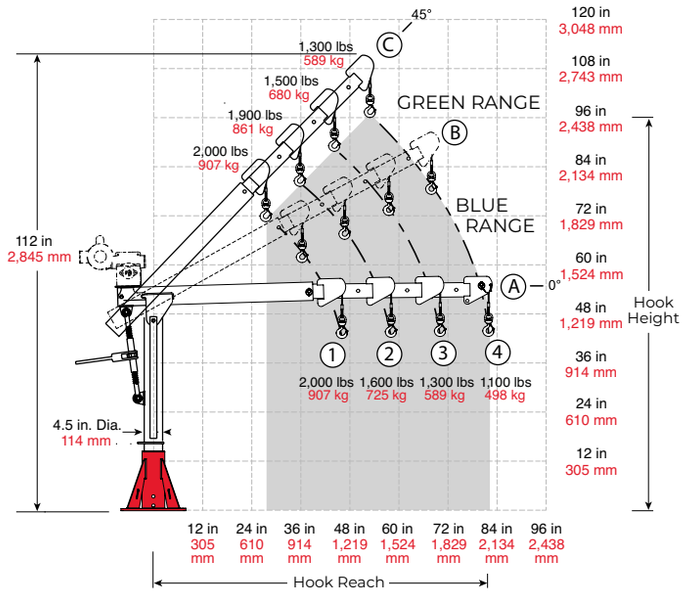
Flush Base 5BF10



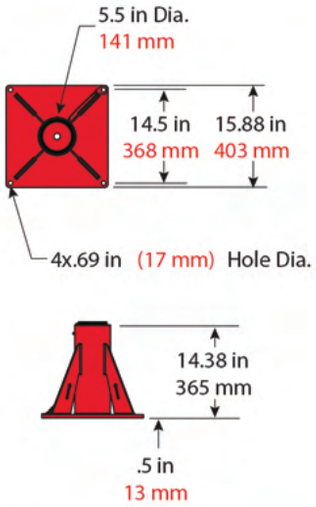
Wall-Mount Base 5BW10



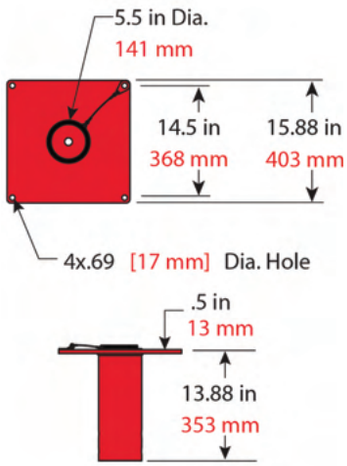
5PT20-E2T & 5PT20-E3T



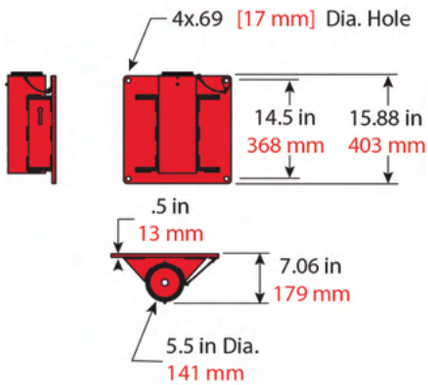
Pedestal Base 5BP20



Flush Base 5BF20



Wall-Mount Base 5BW20



These products are not for lifting people or things over people.

CAPTAIN® 2000
STATIONARY DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5FT20-M1	up to 2,000 lb capacity with M4312PB spur gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	376	171
5FT20-M2	up to 2,000 lb capacity with 4WM2V worm gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	387	176
5FT20X-M2X	up to 2,000 lb capacity with 4WM2VEGRA worm spur gear hand winch and black epoxy-coated ratchet jack—gray-epoxy crane	387	176
5FT20-E2	up to 2,000 lb capacity with 4WP2 electric winch and black epoxy-coated ratchet jack—red-enamel crane	423	192
5FT20X-E2X	up to 2,000 lb capacity with 4WP2EGRA electric winch and black epoxy-coated ratchet jack—gray-epoxy crane	423	192
Crane Only			
5FT20	up to 2,000 lb capacity and black epoxy-coated ratchet jack—red-enamel crane	350	159
5FT20X	up to 2,000 lb capacity and black epoxy-coated ratchet jack—gray-epoxy crane	350	159
Winch Only			
M1	M4312PB—spur gear hand winch only—clear zinc coating	26	12
M2	4WM2V worm gear hand winch only—powder-coat finish	37	17
M2X	4WM2VEGRA worm gear hand winch only—gray-epoxy finish	37	17
M3	M4312PBSS—spur gear hand winch only—stainless-steel finish	26	12
M4	2W40V-BM—worm gear hand winch—enamel finish	120	55
E2	4WP2 electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	73	33
E2X	4WP2EGRA electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	73	33
E3	3WG4B electric winch—115/1/160 VAC with 6 ft pendant control—enamel finish	193	88
E4	4771 electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	89	41
E4X	4771EGRA electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	89	41
E4DC	4771DC electric winch—12 volt DC with 10 ft pendant control—enamel finish	107	49
E4DCX	4771DCEGRA electric winch—12 volt DC with 10 ft pendant control—gray-epoxy finish	107	49

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swivel hook and latch complete with swaged-ball fitting to work with the quick-disconnect anchor on the winch. 316 stainless steel assemblies available—contact factory.

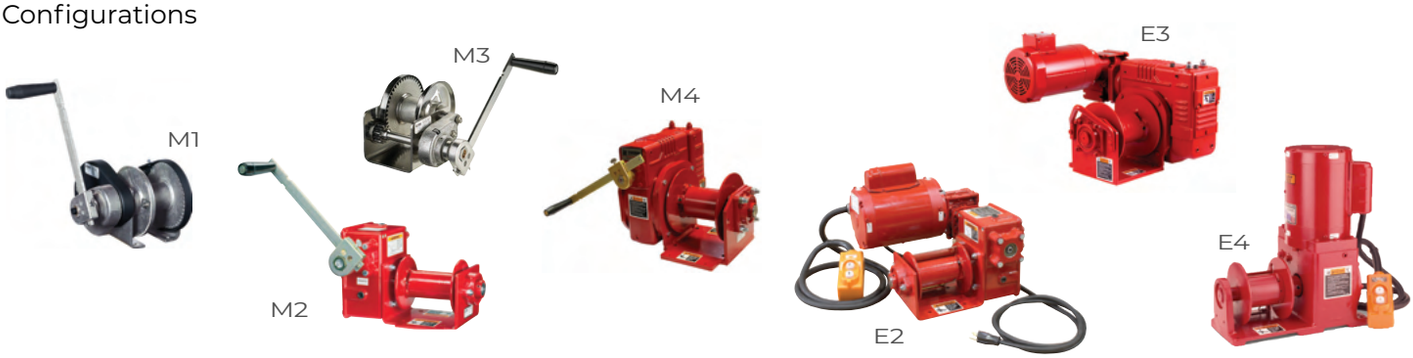
Wire Rope Length		Galvanized Aircraft Cable	304 Stainless Steel Wire Rope
		1/4" Dia. (6.4 mm)	1/4" Dia. (6.4 mm)
(ft)	(m)	Model No.	Model No.
28	8.5	WA25-28NS	WS25-28NS
36	10.9	WA25-36NS	WS25-36NS
45	13.7	WA25-45NS	WS25-45NS
60	18.2	WA25-60NS	WS25-60NS
75	22.8	WA25-75NS	WS25-75NS

Captain 2000 5FT20 Series
Lift Below Floor[1] Level

Lift Below Floor[2]				Wire Rope Diameter		Wire Rope Length[3]		Winch Configurations Maximum Winch Rating													
Minimum (D4)		Maximum (D1)						M1		M2		M3		M4		E2		E3		E4	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
-7	-2.1	-2	-0.6	1/4”	6	20	6.0	2,000	(kg)	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907
1	0.3	6	1.8	1/4”	6	28	8.5	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907	2,000	907
9	2.7	14	4.2	1/4”	6	36	10.9	1,800	907	1,700	771	1,800	816	2,000	907	1,700	771	2,000	907	1,800	816
18	5.4	23	7.0	1/4”	6	45	13.7	1,600	816	1,500	680	1,600	725	2,000	907	1,500	680	2,000	907	1,800	816
33	10.0	38	11.5	1/4”	6	60	18.2	1,400	725	1,300	589	1,400	635	2,000	907	1,300	589	2,000	907	1,600	725
48	14.6	53	16.1	1/4”	6	75	22.8	–	635	1,300	589	–	–	2,000	907	1,300	589	2,000	907	1,400	635
63	19.2	68	20.7	1/4”	6	90	27.4	–	–	–	–	–	–	2,000	907	–	–	2,000	907	1,400	635
93	28.3	98	29.8	1/4”	6	120	36.5	–	–	–	–	–	–	2,000	907	–	–	2,000	907	1,300	589
-7	-2.1	-2	-0.6	5/16”	8	20	6.0	1,900	–	2,000	907	1,900	861	2,000	907	2,000	907	2,000	907	2,000	907
1	0.3	6	1.8	5/16”	8	28	8.5	1,600	861	1,600	725	1,600	725	2,000	907	1,600	725	2,000	907	2,000	907
9	2.7	14	4.2	5/16”	8	36	10.9	1,600	725	1,600	725	1,600	725	2,000	907	1,600	725	2,000	907	1,700	771
18	5.4	23	7.0	5/16”	8	45	13.7	1,400	725	1,400	635	1,400	635	2,000	907	1,400	635	2,000	907	1,500	680
33	10.0	38	11.5	5/16”	8	60	18.2	–	635	–	–	–	–	2,000	907	–	–	2,000	907	1,500	680
48	14.6	53	16.1	5/16”	8	75	22.8	–	–	–	–	–	–	2,000	907	–	–	2,000	907	1,300	589
63	19.2	68	20.7	5/16”	8	90	27.4	–	–	–	–	–	–	2,000	907	–	–	2,000	907	1,200	544
93	28.3		29.8	5/16”	8	120	36.5	–	–	–	–	–	–	2,000	907	–	–	2,000	907	–	–

[1] Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
[2] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.
[3] Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.

Winch Configurations



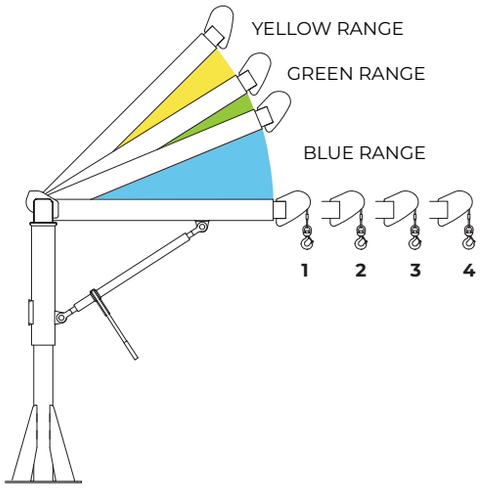
Captain 2000
Performance Ratings

	Boom Position	1st Layer Load Rating	
		(lb)	(kg)
BLUE RANGE	1	1,700	700
	2	1,400	635
	3	1,200	540
	4	1,000	450
GREEN RANGE	1	1,800	815
	2	1,500	680
	3	1,350	610
	4	1,100	500
YELLOW RANGE	1	2,000	905
	2	1,650	750
	3	1,500	680
	4	1,200	540

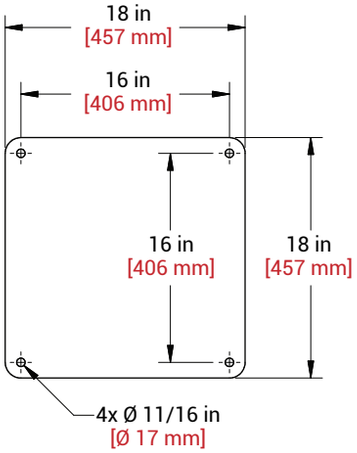
Captain 2000
Reach & Height Above Floor

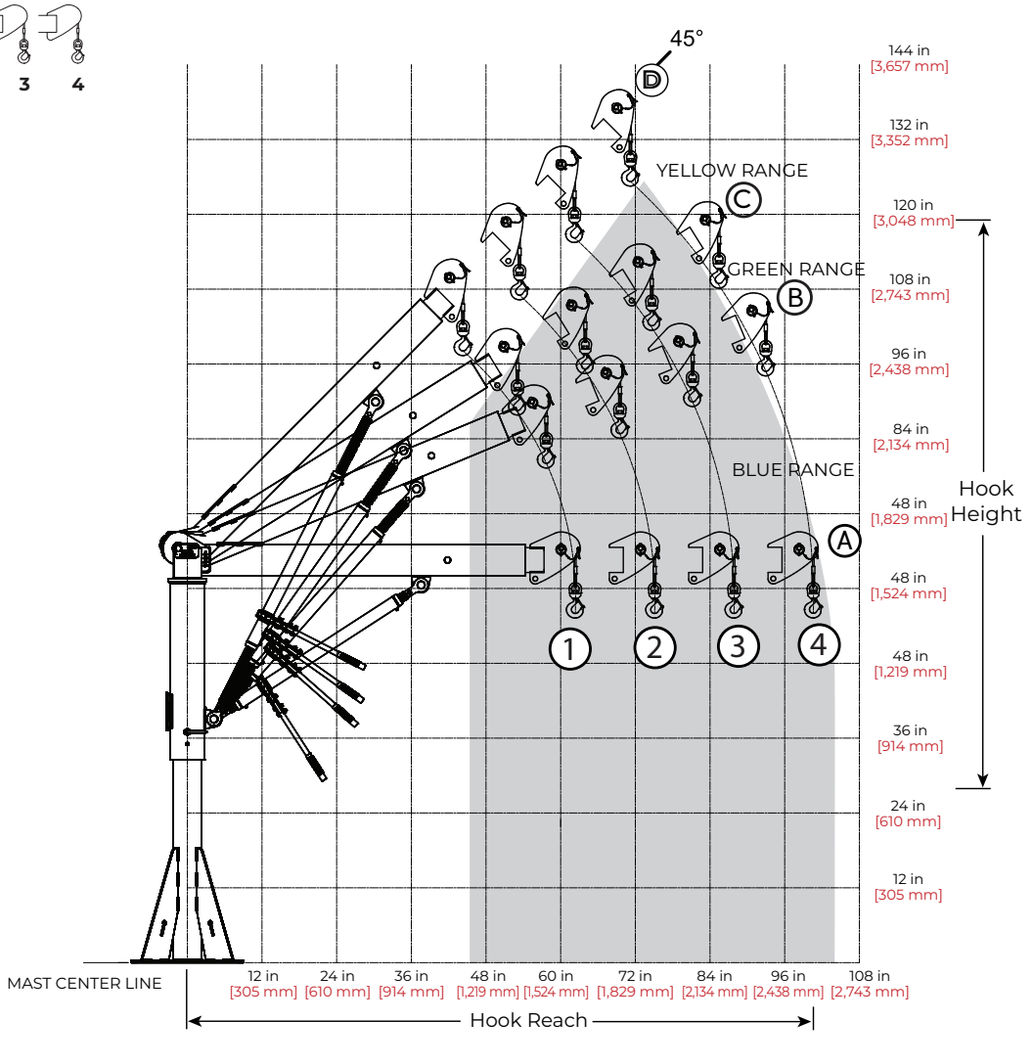
Boom Position	Hook Reach		Hook Height	
	(lb)	(kg)	(lb)	(lb)
A-1	45	1,443	98	2,489
A-2	54	1,371	107	2,717
A-3	63	1,600	116	2,946
A-4	72	1,828	125	3,175
B-1	62	1,574	56	1,422
B-2	75	1,905	56	1,422
B-3	87	2,210	56	1,422
B-4	100	2,540	56	1,422
C-1	57	1,447	80	2,032
C-2	69	1,752	85	2,159
C-3	81	2,057	90	2,286
C-4	93	2,362	94	2,387
D-1	53	1,346	88	2,235
D-2	64	1,625	95	2,413
D-3	74	1,879	102	2,590
D-4	85	2,159	108	2,743

Dimensions are for reference only and subject to change without notice.



Base Dimensions





CAPTAIN® 2500
STATIONARY DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5FT25-M1	up to 2,800 lb capacity with M452B spur gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	640	291
5FT25X-M1X	up to 2,800 lb capacity with M452BEGRA spur gear hand winch and black epoxy-coated ratchet jack—gray-epoxy crane	640	291
5FT25-M2	up to 2,800 lb capacity with 2W40V-BM worm gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	682	310
5FT25X-M2X	up to 2,800 lb capacity with 2W40V-BMX worm gear hand winch and black epoxy-coated ratchet jack—gray-epoxy crane	682	310
5FT25-E2	up to 2,800 lb capacity with 3WG4B electric winch and black epoxy-coated ratchet jack—red-enamel crane	755	343
5FT25X-E2X	up to 2,800 lb capacity with 3WG4B electric winch and black epoxy-coated ratchet jack—gray-epoxy crane	755	343
Crane Only			
5FT25	up to 2,800 lb capacity— black epoxy-coated ratchet jack—red-enamel crane	562	255
5FT25X	up to 2,800 lb capacity— black epoxy-coated ratchet jack—gray-epoxy crane	562	255
Winch Only			
M1	M452B—spur gear hand winch only—red-enamel finish	78	36
M1X	M452BEGRA—spur gear hand winch only—gray-epoxy finish	78	36
M2	2W40V-BM worm gear hand winch only—powder-coat finish	120	55
M2X	2W40V-BMX worm gear hand winch only—gray-epoxy finish	120	55
E2	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	193	88
E2T	3WG4BMT Tall flange electric winch—15/1/60 VAC with 6 ft pendant control—enamel finish	193	88
E2X	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	193	88

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swivel hook and latch complete with plain end. 316 stainless steel assemblies available—contact factory.

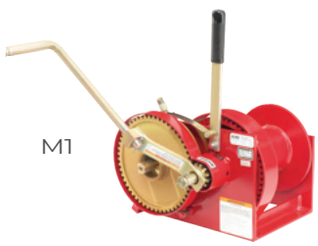
Wire Rope Length		Galvanized Aircraft Cable		304 Stainless Steel Wire Rope	
		5/16" Dia. (7.9 mm)	3/8" Dia. (9.5 mm)	5/16" Dia. (7.9 mm)	3/8" Dia. (9.5 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.
28	8.5	WA31-28DS	WA38-28DS	WS31-28DS	WS38-28DS
36	10.9	WA31-36DS	WA38-36DS	WS31-36DS	WS38-36DS
45	13.7	WA31-45DS	WA38-45DS	WS31-45DS	WS38-45DS
60	18.2	WA31-60DS	WA38-60DS	WS31-60DS	WS38-60DS
75	22.8	WA31-75DS	WA38-75DS	WS31-75DS	WS318-75DS

Captain 2500 5FT25 Series
Lift Below Floor[1] Level

Lift Below Floor[2]				Wire Rope Diameter		Wire Rope Length[3]		Winch Configurations Maximum Winch Rating							
Minimum (D4)		Maximum (D1)						M1		M2		E2		E2T	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
1	0.3	6	1.8	5/16”	8	28	8.5	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
9	2.7	14	4.2	5/16”	8	36	10.9	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
18	5.4	23	7.0	5/16”	8	45	13.7	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
33	10.0	38	11.5	5/16”	8	60	18.2	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
48	14.6	53	16.1	5/16”	8	75	22.8	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
63	19.2	68	20.7	5/16”	8	90	27.4	2,200	1,270	2,200	1,270	2,200	1,270	2,700	1,224
93	28.3	98	29.8	5/16”	8	120	36.5	–	–	2,200	1,270	2,700	1,224	2,400	1,088
123	37.4	128	39.0	5/16”	8	150	45.7	–	–	–	–	2,500	1,134	2,200	997
173	52.7	178	54.2	5/16”	8	200	60.9	–	–	–	–	–	–	2,100	952
1	0.3	6	1.8	3/8”	10	28	8.5	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
9	2.7	14	4.2	3/8”	10	36	10.9	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
18	5.4	23	7.0	3/8”	10	45	13.7	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
33	10.0	38	11.5	3/8”	10	60	18.2	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
48	14.6	53	16.1	3/8”	10	75	22.8	2,200	1,270	2,200	1,270	2,200	1,270	2,200	1,270
63	19.2	68	20.7	3/8”	10	90	27.4	–	–	2,200	1,270	2,700	1,224	2,500	1,134
93	28.3	98	29.8	3/8”	10	120	36.5	–	–	–	–	2,500	1,134	2,200	997
123	37.4	128	39.0	3/8”	10	150	45.7	–	–	–	–	–	–	2,000	907
173	52.7	178	54.2	3/8”	10	200	60.9	–	–	–	–	–	–	1,900	861

[1] Performance characteristics are for standard products referred to in this manual. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
[2] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.
[3] Wire rope assemblies include a hook and a swaged-ball fitting to work with quick-disconnect anchor on winches, and 316SS wire rope is also available. Please contact the factory.

Winch Configurations

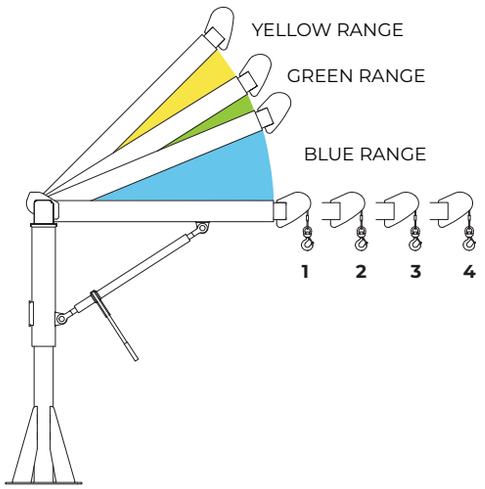

M1


M2


E2 &E2T

Captain 2500
Performance Ratings

	Boom Position	1st Layer Load Rating	
		(lb)	(kg)
BLUE RANGE	1	2,500	1,130
	2	2,500	905
	3	1,700	770
	4	1,500	680
GREEN RANGE	1	2,800	1,270
	2	2,300	1,040
	3	2,000	905
	4	1,700	770
YELLOW RANGE	1	2,800	1,270
	2	2,600	1,180
	3	2,200	1,000
	4	1,800	860

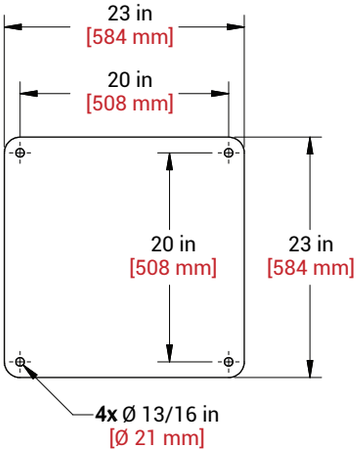


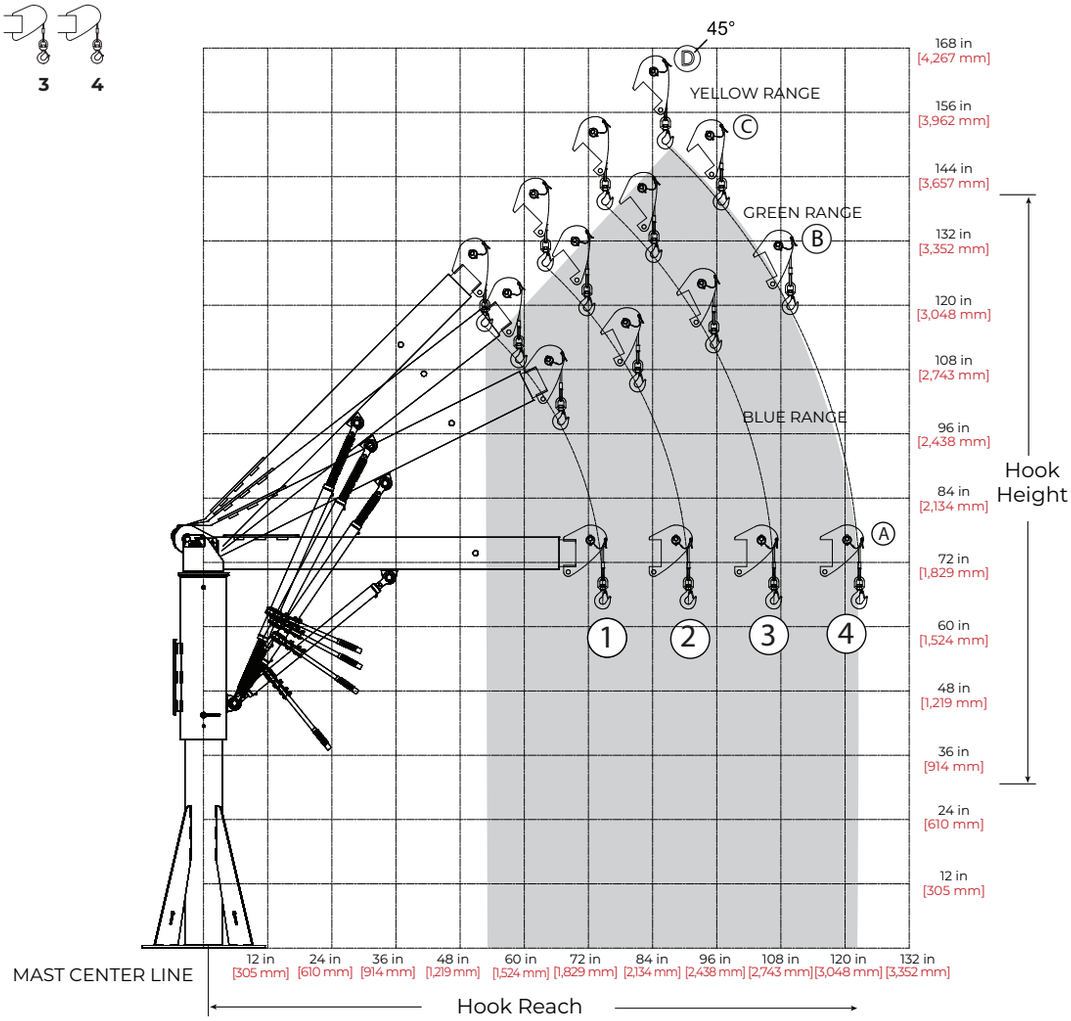
Captain 2500
Reach & Height Above Floor

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1	74	1,879	64	1,625
A-2	90	2,286	64	1,625
A-3	106	2,692	64	1,625
A-4	122	3,098	64	1,625
B-1	67	1,701	98	2,489
B-2	81	2,057	105	2,667
B-3	95	2,413	112	2,844
B-4	110	2,794	119	3,022
C-1	59	1,498	109	2,768
C-2	71	1,803	119	3,022
C-3	84	2,133	129	3,276
C-4	97	2,463	138	3,505
D-1	53	1,346	116	2,946
D-2	64	1,625	127	3,225
D-3	75	1,905	139	3,530
D-4	87	2,209	150	3,810

Dimensions are for reference only and subject to change without notice.

Base Dimensions





CAPTAIN® 4000
STATIONARY DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5FT40-M1	up to 4,100 lb capacity with M452B spur gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	1,101	500
5FT40-M2	up to 4,100 lb capacity with 2W40V-BM worm gear hand winch and black epoxy-coated ratchet jack—red-enamel crane	1,146	520
5FT40X-M2X	up to 4,100 lb capacity with 2W40V-BMX worm spur gear hand winch and black epoxy-coated ratchet jack—gray-epoxy crane	1,146	520
5FT40-E2	up to 4,100 lb capacity with 3WG4B electric winch and black epoxy-coated ratchet jack—red-enamel crane	1,216	550
5FT40X-E2X	up to 4,100 lb capacity with 3WG4B electric winch and black epoxy-coated ratchet jack—gray-epoxy crane	1,216	550
*All configurations available with 5FT40H crane excluding M1			
Crane Only			
5FT40	up to 5,500 lb capacity—black epoxy-coated ratchet jack—red-enamel crane	1,024	460
5FT40G	up to 5,500 lb capacity— black epoxy-coated ratchet jack—galvanized crane	1,024	460
5FT40X	up to 5,500 lb capacity— black epoxy-coated ratchet jack—gray-epoxy crane	1,024	460
5FT40H	up to 5,500 lb capacity—hydraulic jack—red-enamel crane	1,064	480
5FT40HG	up to 5,500 lb capacity—hydraulic jack—galvanized crane	1,064	480
5FT40HX	up to 5,500 lb capacity—hydraulic jack—gray-epoxy crane	1,064	480
Winch Only			
M1	M452B-K spur gear hand winch only-clear zinc coating-(Not available for use with the 5FT40H crane)	91	40
M1X	M452BEGRA spur gear hand winch only-gray-epoxy finish-(Not available for use with the 5FT40H crane)	91	40
M2	2W40V-BM worm gear hand winch only-powder coat finish	141	60
M2X	2W40V-BMX worm gear hand winch only-gray-epoxy finish	141	60
E2	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	188	85
E2X	3WG4 electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	188	85
E2L	3WG4B limit switch ready electric winch—115/1/60 VAC with 6 ft pendant control	187	85
E2LX	3WG4BEGRA limit switch ready electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	187	85
E3DL	4HWF6M limit switch ready electric winch—230/3/60 VAC with control enclosure, 10' pendant—red-enamel finish	476	215
E3DLX	4HWF6MX limit switch ready electric winch—230/3/60 VAC with control enclosure, 10' pendant—gray-epoxy finish	476	215
E3EL	4HWF6M limit switch ready electric winch—460/3/60 VAC with control enclosure, 10' pendant—red-enamel finish	476	215
E3ELX	4HWF6MX limit switch ready electric winch—460/3/60 VAC with control enclosure, 10' pendant—gray-epoxy finish	476	215

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies. 316 stainless steel assemblies available—contact factory. For extended wire rope length—contact factory.

Wire Rope Length		Galvanized Aircraft Cable Swivel Hook and Unfinished End	304 Stainless Steel Wire Rope			Galvanized EIPS Steel Wire Rope Carbon Steel Swivel Hook and Unfinished End	
			Swivel Hook and Unfinished End	Carbon Steel Swivel Hook and Unfinished End			
		3/8" Dia. (9.53 mm)	3/8" Dia. (9.53 mm)	7/16" Dia. (11.11 mm)	1/2" Dia. (12.7 mm)	7/16" Dia. (11.11 mm)	1/2" Dia. (12.7 mm)
(ft)	(m)	Model No.	Model No.	Model No.	Model No.	Model No.	Model No.
28	8.5	WA38-28DS	WS38-28DS	WS44-28DS	WS50-28DS	WEG44-28DS	WEG50-28DS
36	10.9	WA38-36DS	WS38-36DS	WS44-36DS	WS50-36DS	WEG44-36DS	WEG50-36DS
45	13.7	WA38-45DS	WS38-45DS	WS44-45DS	WS50-45DS	WEG44-45DS	WEG50-45DS
60	18.2	WA38-60DS	WS38-60DS	WS44-60DS	WS50-60DS	WEG44-60DS	WEG50-60DS
75	22.8	WA38-75DS	WS38-75DS	WS44-75DS	WS50-75DS	WEG44-75DS	WEG50-75DS

Captain 4000 5FT40 Series
Lift Below Floor[1] Level

Lift Below Floor[2]				Wire Rope Diameter		Wire Rope Length		Winch Configurations Maximum Winch Rating							
Minimum (C4)		Maximum (C1)						M1		M2		E2		E3	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
-4	-1	2	0	3/8”	10	28	8	4,100	1,860	4,100	1,860	4,100	1,860	4,100	1,860
4	1	10	3	3/8”	10	36	10	4,100	1,860	4,100	1,860	3,600	1,630	4,100	1,860
13	3	19	5	3/8”	10	45	13	3,700	1,680	4,100	1,860	3,600	1,630	4,100	1,860
28	8	34	10	3/8”	10	60	18	3,700	1,680	3,700	1,680	3,200	1,450	4,100	1,860
43	13	49	14	3/8”	10	75	22	3,400	1,540	3,400	1,540	3,200	1,450	4,100	1,860
58	17	64	19	3/8”	10	90	27	–	–	3,400	1,540	2,900	1,310	4,100	1,860
88	26	94	28	3/8”	10	120	36	–	–	–	–	2,700	1,220	4,100	1,860
118	35	124	37	3/8”	10	150	45	–	–	–	–	–	–	4,100	1,860
168	51	174	53	3/8”	10	200	60	–	–	–	–	–	–	4,100	1,860
-4	-1	2	0	7/16”	11	28	8	3,900	1,770	3,900	1,770	3,300	1,500	5,500	2,500
4	1	10	3	7/16”	11	36	10	3,400	1,540	3,900	1,770	3,300	1,500	5,500	2,500
13	3	19	5	7/16”	11	45	13	3,400	1,540	3,400	1,540	3,300	1,500	5,500	2,500
28	8	34	10	7/16”	11	60	18	3,000	1,360	3,000	1,360	2,900	1,315	5,500	2,500
43	13	49	14	7/16”	11	75	22	–	–	3,000	1,360	2,600	1,180	5,000	2,270
58	17	64	19	7/16”	11	90	27	–	–	–	–	2,600	1,180	5,000	2,270
88	26	94	28	7/16”	11	120	36	–	–	–	–	–	–	4,600	2,090
118	35	124	37	7/16”	11	150	45	–	–	–	–	–	–	4,200	1,900
168	51	174	53	7/16”	11	200	60	–	–	–	–	–	–	–	–
-4	-1	2	0	1/2”	13	28	8	3,700	1,680	3,700	1,680	3,200	1,450	5,500	2,500
4	1	10	3	1/2”	13	36	10	3,200	1,450	3,700	1,680	3,200	1,450	5,500	2,500
13	3	19	5	1/2”	13	45	13	3,200	1,450	3,200	1,450	2,800	1,270	5,500	2,500
28	8	34	10	1/2”	13	60	18	–	–	–	–	2,800	1,270	5,500	2,500
43	13	49	14	1/2”	13	75	22	–	–	–	–	–	–	5,000	2,270
58	17	64	19	1/2”	13	90	27	–	–	–	–	–	–	5,000	2,270
88	26	94	28	1/2”	13	120	36	–	–	–	–	–	–	4,500	2,040

[1]Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.

[2]Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.

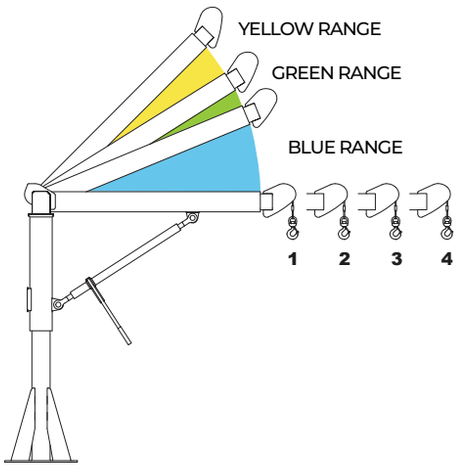
*Not available for use with the 5FT40H crane.

Winch Configurations

not shown—control enclosure mounted

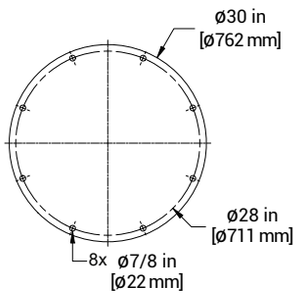
Captain 4000 Performance Ratings

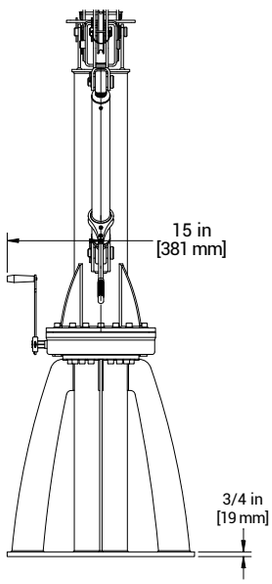
	Boom Position	1st Layer Load Rating		Hook Reach		Hook Height**	
		(lb)	(kg)	(in)	(mm)	(in)	(mm)
BLUE RANGE	A1	5,500	2,500	77	1,955	68	1,727
	A2	4,600	2,090	92	2,337	68	1,727
	A3	4,000	1,810	107	2,718	68	1,727
	A4	3,300	1,500	122	3,099	68	1,727
GREEN RANGE	B1	4,800	2,180	69	1,753	102	2,591
	B2	4,100	1,860	82	2,083	108	2,743
	B3	3,500	1,590	96	2,438	115	2,921
	B4	3,000	1,360	109	2,768	121	3,073
YELLOW RANGE	C1	4,000	1,810	77	1,955	122	3,099
	C2	3,300	1,500	87	2,209	132	3,353
	C3	5,500	2,500	55	1,397	143	3,632
	C4	4,600	2,090	66	1,677	153	3,886

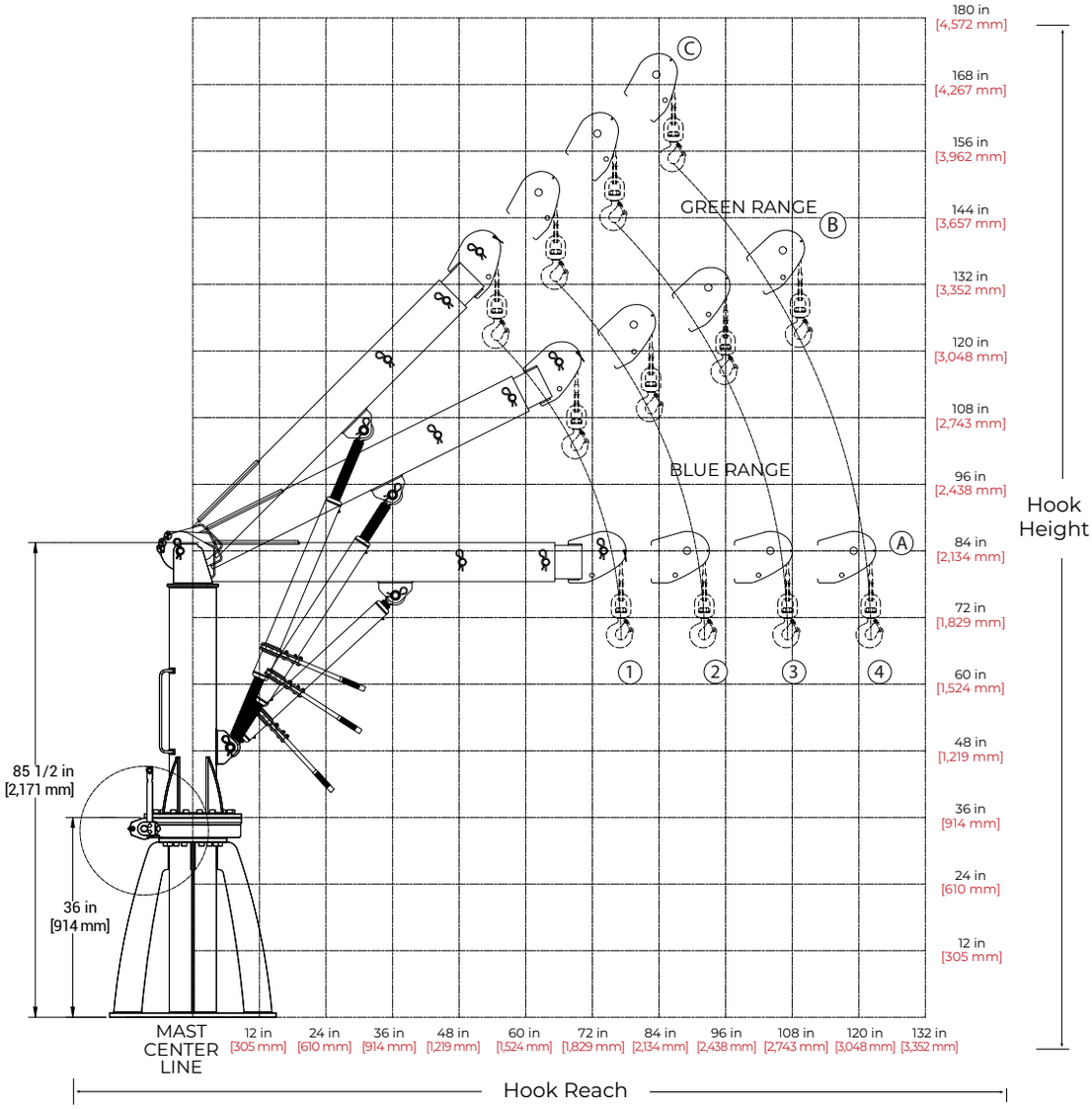


Dimensions are for reference only and subject to change without notice.
**Crane maximum load rating. Load rating may decrease as layers of rope wind onto the winch-drum. Refer to winch-specific inforation

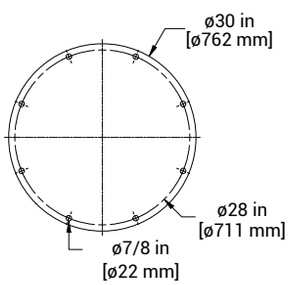
5FT40

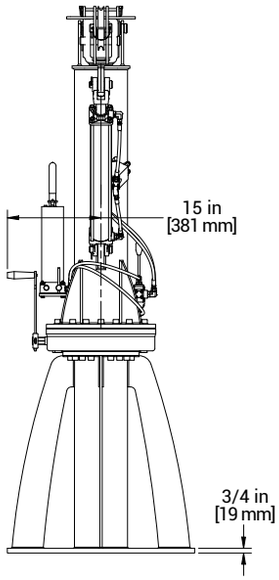


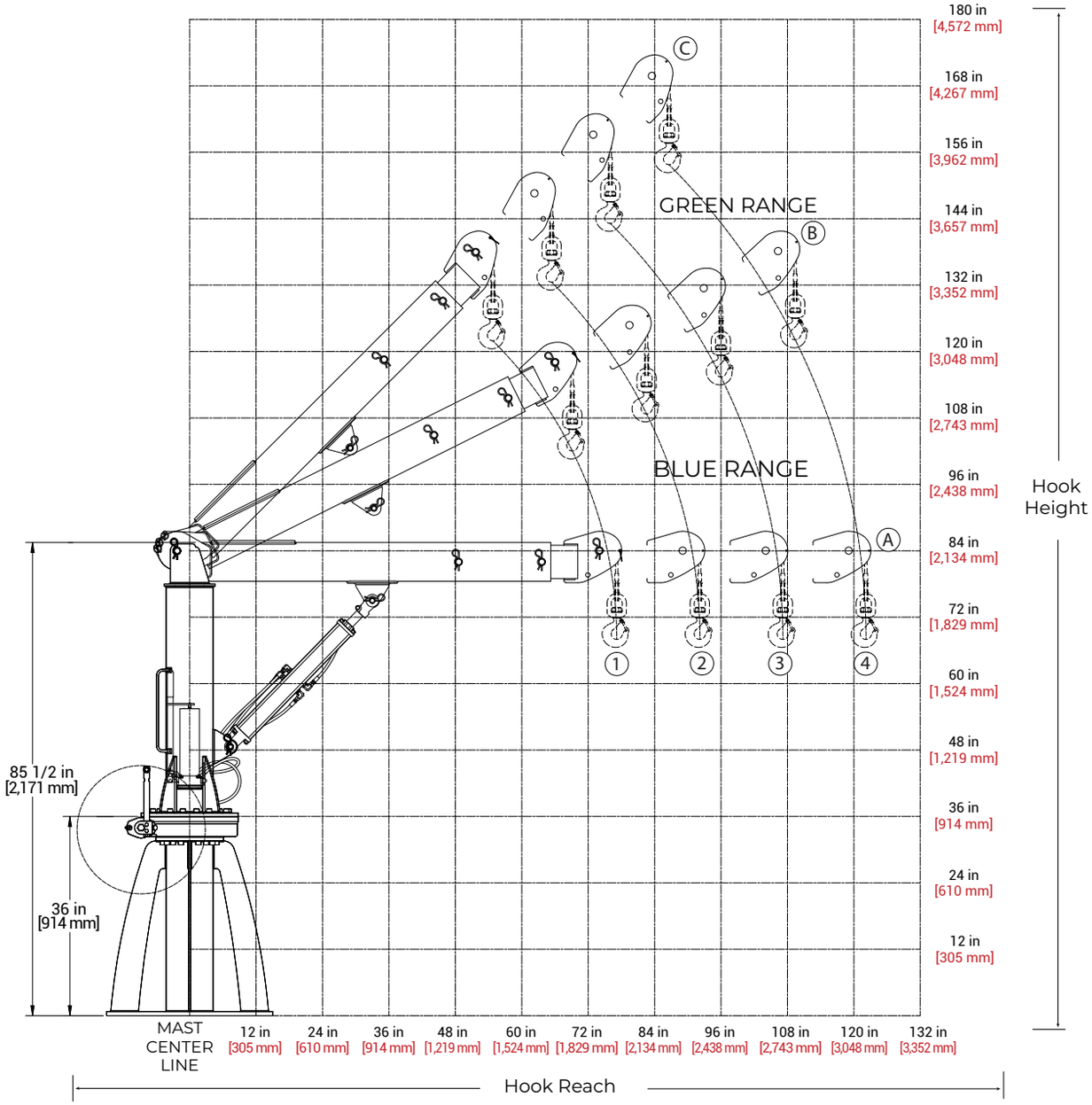




5FT40H


ø30 in
[ø762 mm]
ø28 in
[ø711 mm]
ø7/8 in
[ø22 mm]


15 in
[381 mm]
3/4 in
[19 mm]


GREEN RANGE
BLUE RANGE
A
B
C
1
2
3
4
85 1/2 in
[2,171 mm]
36 in
[914 mm]
180 in
[4,572 mm]
168 in
[4,267 mm]
156 in
[3,962 mm]
144 in
[3,657 mm]
132 in
[3,352 mm]
120 in
[3,048 mm]
108 in
[2,743 mm]
96 in
[2,438 mm]
84 in
[2,134 mm]
72 in
[1,829 mm]
60 in
[1,524 mm]
48 in
[1,219 mm]
36 in
[914 mm]
24 in
[610 mm]
12 in
[305 mm]
Hook
Height
MAST
CENTER
LINE
12 in [305 mm]
24 in [610 mm]
36 in [914 mm]
48 in [1,219 mm]
60 in [1,524 mm]
72 in [1,829 mm]
84 in [2,134 mm]
96 in [2,438 mm]
108 in [2,743 mm]
120 in [3,048 mm]
132 in [3,352 mm]
Hook Reach

ADMIRAL® 3000
TRANSPORTABLE DAVIT CRANE

CONFIGURATIONS

Model	Description	Approx. Ship Wt.	
		(lb)	(kg)
Popular Configurations			
5PT30J-M1	up to 3,000 lb capacity with M452PB spur gear hand winch and ratchet jack—enamel crane	719	326
5PT30JG-M1	up to 3,000 lb capacity with M452B spur gear hand winch and ratchet jack—galvanized crane	719	326
5PT30JG-M1X	up to 3,000 lb capacity with M452BEGRA spur gear hand winch (epoxy) gray—galvanized ratchet jack and crane	719	326
5PT30J-E2	up to 3,000 lb capacity with 3WG4B electric winch and ratchet jack—enamel crane	816	370
5PT30JG-E2	up to 3,000 lb capacity with 3WG4B electric winch—galvanized ratchet jack and crane	816	370
Crane Only			
5PT30	up to 3,000 lb—boom brace—enamel finish	563	255
5PT30G	up to 3,000 lb—boom brace—galvanized finish	563	255
5PT30X	up to 3,000 lb—boom brace—gray-epoxy finish	563	255
5PT30J	up to 3,000 lb—adjustable ratchet-jack—enamel finish	628	285
5PT30JG	up to 3,000 lb—adjustable ratchet-jack—galvanized finish	628	285
5PT30JX	up to 3,000 lb—adjustable ratchet-jack—gray-epoxy finish	623	283
Winch Only			
M1	M452B—spur gear hand winch only—enamel finish	91	41
M1X	M452BEGRA—spur gear hand winch only—gray-epoxy finish	91	41
M2	2W40V-BMT4P worm gear hand winch—powder-coat fi nish	141	64
M2X	2W40V-BMT4XP worm gear hand winch—gray-epoxy finish	141	141
E2	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—enamel finish	188	85
E2X	3WG4B electric winch—115/1/60 VAC with 6 ft pendant control—gray-epoxy finish	188	85

Independent Bases—sold separately

Pedestal, socket (flush-ount), or wall-mount style.

IMPORTANT: Base installation is the purchaser's responsibility. Thern recommends consulting a civil engineer or other qualifiedprofessional. Contact Thern for installation guidelines.

Finishes	MODELS		
	Pedestal	Flush	Wall
Red Enamel	5BP30	5BF30	5BW30
Galvanized	5BP30G	5BF30G	5BW30G
Epoxy Paint	5BP30X	5BF30X	5BW30X
Approximate Ship Weight	180 lbs (82 kg)	160 lbs (73 kg)	155 lbs (71kg)

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Wire Rope Assemblies—sold separately

Galvanized or stainless steel wire rope assemblies with swivel hook on one end and unfinished on the other end.

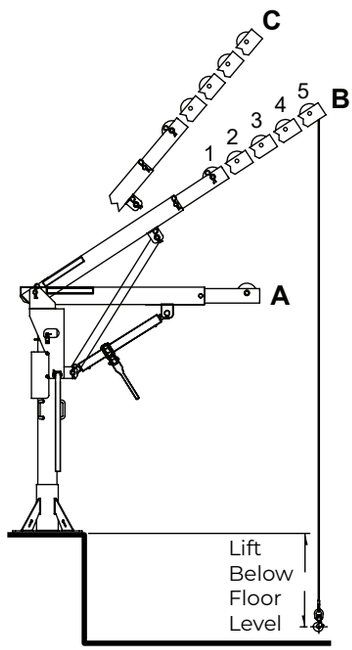
Wire Rope Length		Galvanized Aircraft Cable	304 Stainless Steel Wire Rope
		3/8" Dia. (9.5 mm)	3/8" Dia. (9.5 mm)
(ft)	(m)	Model No.	Model No.
28	8.5	WA38-28DS	WS38-28DS
36	10.9	WA38-36DS	WS38-36DS
45	13.7	WA38-45DS	WS38-45DS
60	18.2	WA38-60DS	WS38-60DS
75	22.8	WA38-75DS	WS38-75DS

PERFORMANCE

Admiral 3000 5PT30 Series
Lift Below Floor[1] Level

Lift Below Floor[2]				Wire Rope Diameter		Wire Rope Length		Winch Configurations Maximum Winch Rating					
Minimum (C5)		Maximum (C1)						M1		M2		E2	
(ft)	(m)	(ft)	(m)	(in)	(mm)	(ft)	(m)	(lbs)	(kg)	(lbs)	(kg)	(lbs)	(kg)
-4	-1.2	2	0.6	3/8”	10	28	8.5	3,000	1,360	3,000	1,360	3,000	1,360
4	1.2	10	3.0	3/8”	10	36	10.9	3,000	1,360	3,000	1,360	3,000	1,360
13	3.9	19	5.7	3/8”	10	45	13.7	3,000	1,360	3,000	1,360	3,000	1,360
28	8.5	34	10.3	3/8”	10	60	18.2	3,000	1,360	3,000	1,360	3,000	1,360
43	13.1	49	14.9	3/8”	10	75	22.8	3,000	1,360	3,000	1,360	3,000	1,360
58	17.6	64	19.5	3/8”	10	90	27.4	–	–	2,700	1,224	2,700	1,224
88	26.8	94	28.6	3/8”	10	120	36.5	–	–	2,500	1,134	2,500	1,134

[1] Performance characteristics are for standard products. Non-standard products may vary from the original design. Contact Thern, Inc. for this information.
[2] Lift below floor level varies depending on boom position and base configuration. For longer lifts, please contact factory.



Winch
Configurations

Admiral 3000
Performance Ratings

Boom Position	Load Rating	
	(lb)	(kg)
A-1	3,000	1,360
A-2	3,000	1,360
A-3	3,000	1,360
A-4	2,700	1,224
A-5	2,400	1,088
B-1	3,000	1,360
B-2	3,000	1,360
B-3	3,000	1,360
B-4	2,700	1,224
B-5	2,400	1,088
C-1	3,000	1,360
C-2	3,000	1,360
C-3	3,000	1,360
C-4	2,700	1,224
C-5	2,400	1,088

Admiral 3000 Pedestal Base
Hook Height and Reach

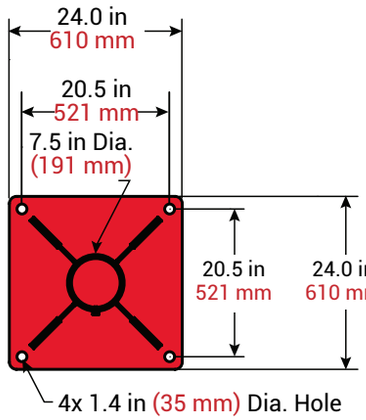
Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1*	72	1,829	66	1,677
A-2*	82	2,083	66	1,677
A-3*	92	2,337	66	1,677
A-4*	10	22,591	66	1,677
A-5*	112	2,845	66	1,677
B-1 (fxed)	60	1,524	106	2,693
B-2 (fxed)	69	1,753	112	2,845
B-3 (fxed)	77	1,956	117	2,972
B-4 (fxed)	85	2,159	123	3,125
B-5 (fxed)	94	2,388	128	3,252
C-1*	46	1,169	122	3,099
C-2*	53	1,347	130	3,302
C-3*	59	1,499	137	3,480
C-4*	66	1,677	145	3,683
C-5*	72	1,829	153	3,887

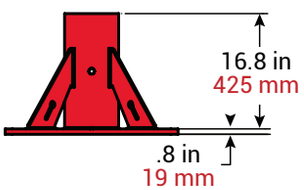
* Boom position requires purchasing the screw jack.
Dimensions are for reference only and subject to change without notice.

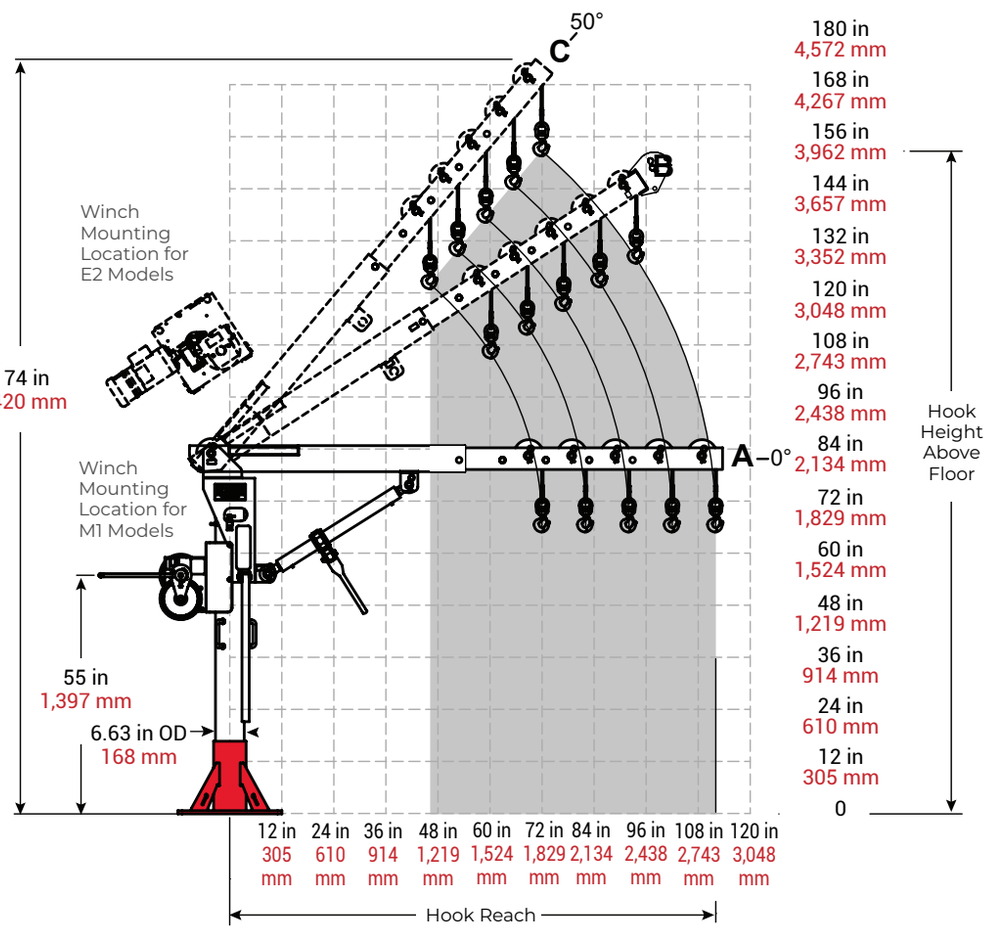
Admiral 3000 Pedestal Base

5BP30 5BP30G 5BP30X

Pedestal Base







Positions A and C require a ratchet-style screw jack.

Admiral 3000 Flush- or Wall-Mount Base
Hook Height and Reach

Boom Position	Hook Reach		Hook Height	
	(in)	(mm)	(in)	(mm)
A-1*	72	1,829	50	1,270
A-2*	82	2,083	50	1,270
A-3*	92	2,337	50	1,270
A-4*	10	22,591	50	1,270
A-5*	112	2,845	50	1,270
B-1 (fxed)	60	1,524	90	2,286
B-2 (fxed)	69	1,753	96	2,439
B-3 (fxed)	77	1,956	101	2,566
B-4 (fxed)	85	2,159	107	2,718
B-5 (fxed)	94	2,388	112	2,845
C-1*	46	1,169	106	2,693
C-2*	53	1,347	114	2,896
C-3*	59	1,499	121	3,074
C-4*	66	1,677	129	3,277
C-5*	72	1,829	137	3,480

* Boom position requires purchasing the screw jack.
Dimensions are for reference only and subject to change without notice.

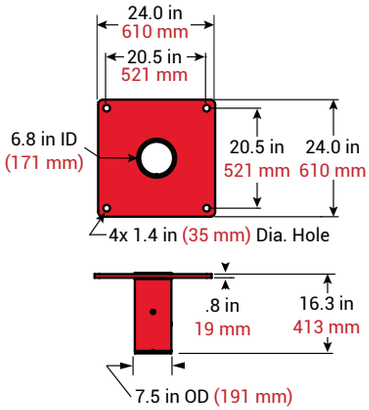
Admiral 3000 Flush-Mount Base

5BF30 5BF30G 5BF30X

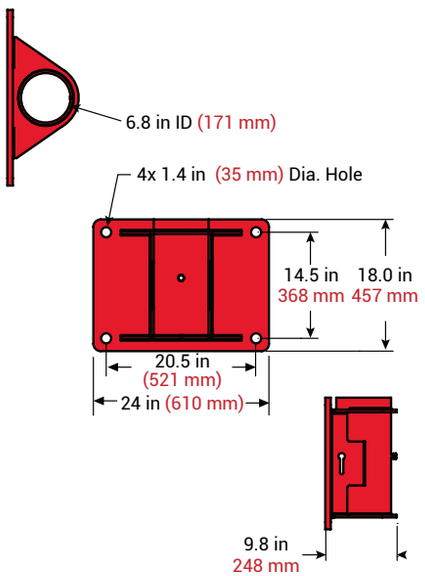
Admiral 3000 Wall-Mount Base

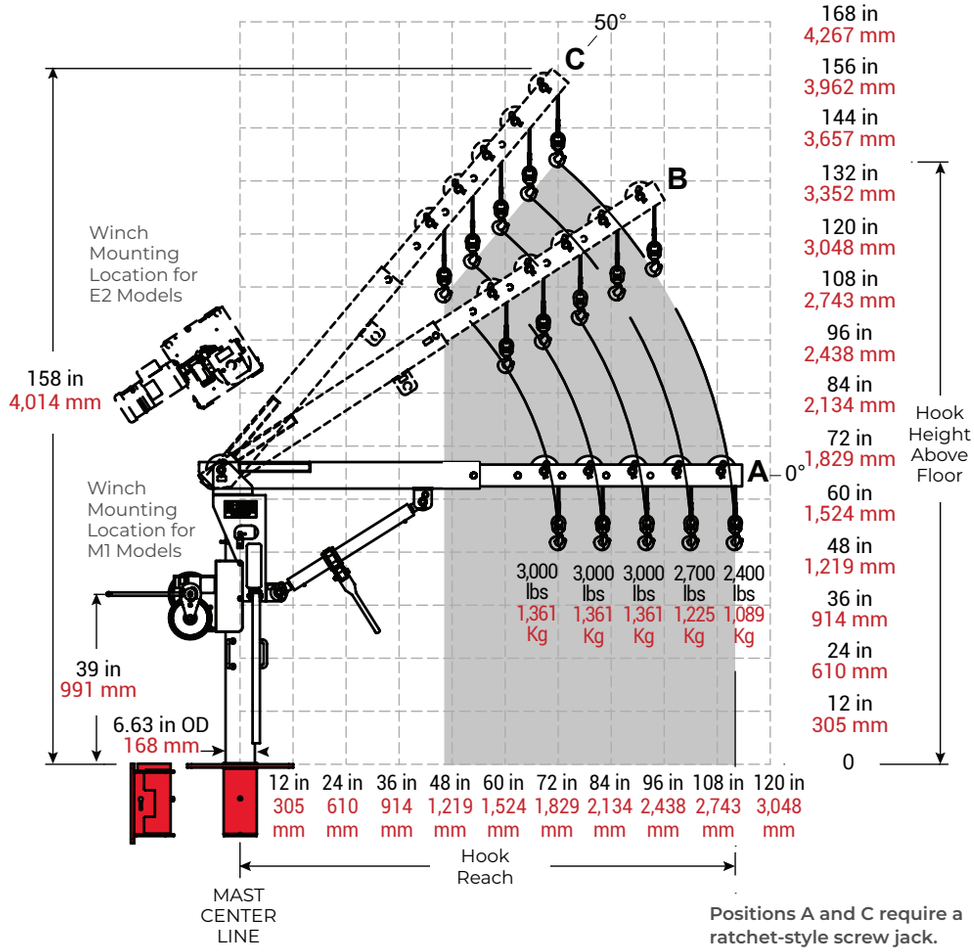
5BF30 5BF30G 5BF30X

Flush-Mount Base



Wall-Mount Base





Positions A and C require a ratchet-style screw jack.

CRANE COMPONENT WEIGHTS

CRANE COMPONENT WEIGHT CHART

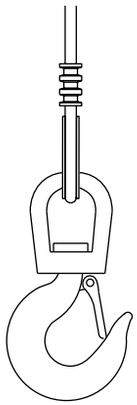
Assembly	First Mate 5PF5	Ensign 500 5PA5	Ensign 1,000 5PA10	Commander 500 5PT5	Commander 1,000 5PT10	Commander 2,000 5PT20	Admiral 5PT30
Bearing Assembly1	-	-	9 lb / 4.1 kg	-	-	-	-
Boom Assembly	30 lb / 13.6 kg	29 lb / 13.2 kg-	53 lb / 24.0 kg	26 lb / 11.8 kg	`34 lb / 15.4 kg	75 lb / 34.0 kg	123 lb / 55.8 kg
Boom Brace Assembly	-	4 lb / 1.8 kg	7 lb / 3.2 kg	-	-	-	-
Boom Extension Assembly	-	-	-	15 lb / 6.8 kg	24 lb / 10.9	47 lb / 21.3 kg	96 lb / 43.6 kg
Mast Assembly	26 lb / 11.8 kg	21 lb / 9.5 kg	54 lb / 24.5 kg	27 lb 12.2 kg	36 lb / 16.3 kg	`68 lb / 30.8 kg	198 lb / 89.8 kg
Mast Assembly (upper)	-	-					99 lb / 44.9 kg
Ratchet Jack	-	-	-	12 lb / 5.5 kg	12 lb / 5.5 kg	12 lb / 5.5 kg	46 lb / 20.9 kg
Rotational Handle	2 lb / 0.9 kg	2 lb / 0.9 kg	2 lb / 0.9 kg	2 lb / 0.9 kg	7 lb / 3.2 kg	7 lb / 3.2 kg	9 lb / 4.1 kg
Sheave Assembly	-	5 lb / 2.3 kg	6 lb / 2.7 kg	-	-	-	-
Winch Bracket	3 lb / 1.4 kg	3 lb / 1.4 kg	4 lb / 1.8 kg	3 lb / 1.4 kg	4 lb / 1.8 kg	11 lb / 5.0 kg	36 lb / 16.3 kg

WIRE ROPES

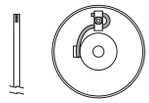
Wire Rope Assemblies

How to Order Wire Rope

Thern winches are sold without wire rope.Order wire rope separately from Thern or a reputable supplier. The breaking strength of new wire rope should be five times the largest load for lifting applications and three times the largest load for pulling applications. All wire rope from Thern ships loose.

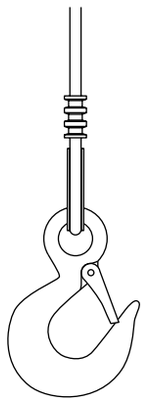


Standard Swivel Hook

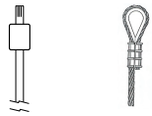


Unfinished End

Swaged-Ball End



Non-Standard Eye Hook



Nicopress End | Thimble Eye End

Wire Rope Assemblies

Model Number	Wire Rope Diameter x Length	Approx. Ship Weight	
		(lb)	(kg)
Galvanized aircraft cable with swivel hook and swaged-ball fitting			
WA19-20NS	3/16 in x 20 ft	3	1
WA19-28NS	3/16 in x 28 ft	4	2
WA19-36NS	3/16 in x 36 ft	4	2
WA19-45NS	3/16 in x 45 ft	7	3
WA25-20NS	1/4 in x 20 ft	4	2
WA25-28NS	1/4 in x 28 ft	5	2
WA25-36NS	1/4 in x 36 ft	6	3
WA25-45NS	1/4 in x 45 ft	7	3
WA25-60NS	1/4 in x 60 ft	9	4
WA25-75NS	1/4 in x 75 ft	11	5
Galvanized aircraft cable with swivel hook and unfinished end			
WA31-20DS	5/16 in x 20 ft	6	3
WA31-28DS	5/16 in x 28 ft	7	3
WA31-36DS	5/16 in x 36 ft	8	4
WA31-45DS	5/16 in x 45 ft	10	5
WA31-60DS	5/16 in x 60 ft	12	5
WA31-75DS	5/16 in x 75 ft	15	7
WA38-28DS	3/8 in x 28 ft	8	4
WA38-36DS	3/8 in x 36 ft	10	5
WA38-45DS	3/8 in x 45 ft	11	5
WA38-60DS	3/8 in x 60 ft	14	6
WA38-75DS	3/8 in x 75 ft	17	8
Galvanized EIPS steel wire rope with carbon steel swivel hook and unfinished end			
WEG44-28DS	7/16 in x 28 ft	15	7
WEG44-36DS	7/16 in x 36 ft	18	8
WEG44-45DS	7/16 in x 45 ft	21	10
WEG44-60DS	7/16 in x 60 ft	26	12
WEG44-75DS	7/16 in x 75 ft	31.5	14

Model Number	Wire Rope Diameter x Length	Approx. Ship Weight	
		(lb)	(kg)
304 stainless steel wire rope with SS swivel hook and swaged-ball fitting			
WS19-20NS	3/16 in x 20 ft	3	1
WS19-28NS	3/16 in x 28 ft	3	1
WS19-36NS	3/16 in x 36 ft	4	2
WS19-45NS	3/16 in x 45 ft	7	3
WS19-60NS	3/16 in x 60 ft	9	4
WS19-75NS	3/16 in x 75 ft	11	5
WS25-20NS	1/4 in x 20 ft	5	2
WS25-28NS	1/4 in x 28 ft	5	2
WS25-36NS	1/4 in x 36 ft	6	3
WS25-45NS	1/4 in x 45 ft	7	3
WS25-60NS	1/4 in x 60 ft	9	4
WS25-75NS	1/4 in x 75 ft	11	5
304 stainless steel wire rope with SS swivel hook and unfinished end			
WS31-20DS	5/16 in x 20 ft	6	3
WS31-28DS	5/16 in x 28 ft	7	3
WS31-36DS	5/16 in x 36 ft	9	4
WS31-45DS	5/16 in x 45 ft	11	5
WS31-60DS	5/16 in x 60 ft	14	6
WS31-75DS	5/16 in x 75 ft	17	8
304 stainless steel wire rope with SS swivel hook and unfinished end			
WS38-28DS	3/8 in x 28 ft	8	4
WS38-36DS	3/8 in x 36 ft	10	5
WS38-45DS	3/8 in x 45 ft	12	5
WS38-60DS	3/8 in x 60 ft	15	7
WS38-75DS	3/8 in x 75 ft	18	8
304 stainless steel wire rope with carbon steel swivel hook and unfinished end			
WS44-28DS	7/16 in x 28 ft	23	10
WS44-36DS	7/16 in x 36 ft	27	12
WS44-45DS	7/16 in x 45 ft	31	14
WS44-60DS	7/16 in x 60 ft	38	17
WS44-75DS	7/16 in x 75 ft	45	20

Model Number	Wire Rope Diameter x Length	Approx. Ship Weight	
		(lb)	(kg)
316 stainless steel wire rope with SS swivel hook and swaged-ball fitting			
WSS19-20NS	3/16 in x 20 ft	3	1
WSS19-28NS	3/16 in x 28 ft	3	1
WSS19-36NS	3/16 in x 36 ft	4	2
WSS19-45NS	3/16 in x 45 ft	7	3
WSS19-60NS	3/16 in x 60 ft	9	4
WSS19-75NS	3/16 in x 75 ft	11	5
WSS25-20NS	1/4 in x 20 ft	5	2
WSS25-28NS	1/4 in x 28 ft	5	2
WSS25-36NS	1/4 in x 36 ft	6	3
WSS25-45NS	1/4 in x 45 ft	7	3
WSS25-60NS	1/4 in x 60 ft	9	4
WSS25-75NS	1/4 in x 75 ft	11	5
316 stainless steel wire rope with SS swivel hook and unfinished end			
WSS31-20DS	5/16 in x 20 ft	6	3
WSS31-28DS	5/16 in x 28 ft	7	3
WSS31-36DS	5/16 in x 36 ft	9	4
WSS31-45DS	5/16 in x 45 ft	11	5
WSS31-60DS	5/16 in x 60 ft	14	6
WSS31-75DS	5/16 in x 75 ft	17	8

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Breaking Strength of Wire Rope (lb)

Wire Rope Diameter	"7x19 Galvanized Aircraft Cable	"7x19 304 Stainless Steel Wire Rope	"7x19 316 Stainless Steel Wire Rope
1/8 in	2,000	1,760	1,530
3/16 in	4,200	3,700	3,210
1/4 in	7,000	6,400	5,600
5/16 in	9,800	9,000	8,200
3/8 in	14,400	12,000	11,000

Values shown are for reference only.

Breaking Strength of Wire Rope (lb)

Wire Rope Diameter	6x37 IWRC (Improved Plow Steel) Wire Rope	6x37 IWRC (Extra Improved Plow Steel) Wire Rope	6x19 IWRC 304 Stainless Wire Rope
3/8 in	13,120	15,100	----
7/16 in	17,780	20,400	16,300
1/2 in	23,000	26,600	22,800
9/16 in	29,000	33,600	28,500
5/8 in	35,800	41,200	35,000
3/4 in	51,200	58,800	49,600
7/8 in	69,200	79,600	66,500
1 in	89,800	103,400	85,400
1-1/8 in	113,000	130,000	106,400
1-1/4 in	138,800	159,800	129,400
1-3/8 in	167,000	192,000	153,600

Values shown are for reference only.

When selecting a wire rope, use the breaking strength specified by the rope manufacturer.

CONTROLS

Smooth, Precision Control Your Way

You selected a Thern electric winch to save time, reduce operator fatigue, and enhance precision. Faster and more accurate lifting, lowering, pulling, and placing is simply more efficient—and that means greater productivity. Why not enhance your productivity with a Thern control that is specifically engineered to match the performance characteristics of your winch as well as the local power supply and demands of your application?

Thern offers a variety of standard controls to complement its line of winches, including a wireless version. Our 10:1 infinitely variable-speed control provides enhanced positioning as well as overload protection and soft starts and stops. Yet, Thern also offers a range of custom solutions that include encoders, operator pedestal stations, as well as concurrent/dependent operation for multiple winches. Every situation and application are different—and Thern gets it. Using only the highest-quality UL-, IEC- and CSA-recognized components and hardware, Thern will design and build a value-added control system to meet your specific application, environment, and needs.

Electric Drum Control Switches

Single-Speed, Reversing-Drum Controls for 1- and 3-phase motors up to 7.5 hp

- **UL and CSA Recognized** components throughout.
- **Enclosures** to suit your application needs. **NEMA 1** (industrial) rated switches provide protection against dirt and corrosion for most indoor applications. **NEMA 4** (watertight) rated switches keep dirt and water out and are approved for most outdoor applications.
- **Wiring Diagram** is supplied inside the enclosure for convenient reference.
- **Two-Year Limited Warranty**

WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:
- Voltage and phase required
- Motor horsepower

Drum control switches for 115-volt, single-phase motors up to 1.5 hp include 8-foot power cord with grounded plug.

Electric Drum Control Switches—Horsepower Ratings

Model Number	Description	Voltage / Phase / Hertz with Maximum-Rated Motor HP				Approx. Ship Weight	
		115 / 1 / 60[1]	230 / 1 / 60	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10L2A1	NEMA 1	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	3	2
10L7E1	NEMA 1	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	3	2
10L2A4	NEMA 4—watertight	to 1.5 hp	to 2 hp	to 3 hp	to 3 hp	7	4
10L7E4	NEMA 4—watertight	to 1.5 hp	to 3 hp	to 5 hp	to 7.5 hp	7	4

Please contact Thern or nearest Thern Distributor for firm, fixed price and deliver
[1] Controls for 115-volt, single-phase motors up to 1.5 hp include 8-foot power cord with grounded plug.

Variable-Speed Electric Motor Controls

For 3-phase, 230-VAC motors from 1 to 25 hp and 3-phase, 460-VAC motors from 1 to 60 hp

10:1 Infinitely Variable-Speed Controls provide accurate positioning of loads, soft starts, soft stops, and overload protection.

- Frequencies greater than 50 Hz are possible in no-load or light-load conditions decreasing rigging time.
- Diagnostic and Troubleshooting Capabilities: digital display provides drive status.
- Programmable Performance keypad is adjustable to control acceleration and deceleration rates.
- Steel Enclosure is NEMA 12 rated (indoor). NEMA 4 rated (watertight) enclosures also available.

- Pendant Control Switch is NEMA 4X rated (watertight) with 3-step, infinitely variable-speed push buttons on a 50-foot cord, which allows the operator to stand away from the winch during operation. Pendant control is operated with momentary contact-type push buttons. Cord lengths of less than 50 feet are available. Please specify when ordering.
- UL, IEC, or CSA Recognized components throughout.
- Electronic Thermal Overload Relay provides motor overload protection and is field programmable.
- Wiring Diagram is supplied inside enclosure.
- Options available include multiple axis, remote controls, mainline contact, disconnect switch, enclosure temperature controls, indicating lights, selector switches, horn and bells, meters, and limit switches. Contact Thern for more information.
- Explosion-Proof Controls also available. Please contact Thern for more information.
- Two-Year Limited Warranty

WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:

- Voltage and phase required
- Motor horsepower
- Pendant control cord length—up to 50 feet
- Pendant control labeling—for/rev or up/down
- Indoor or outdoor use
- Lifting or pulling application

Variable-Speed Electric Motor Controls—Horsepower Ratings

Model Number	Maximum-Rated Motor Horsepower for Power Supply Current		Approx. Ship Weight	
	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10V1D12L	1 hp	—	100	46
10V2D12L	2 hp	—	100	46
10V3D12L	3 hp	—	100	46
10V5D12L	5 hp	—	100	46
10V7D12L	7.5 hp	—	120	55
10V10D12L	10 hp	—	120	55
10V15D12L	15 hp	—	120	55
10V20D12L	20 hp	—	210	96
10V25D12L	25 hp	—	210	96
10V1E12L	—	1 hp	100	46
10V2E12L	—	2 hp	100	46
10V3E12L	—	3 hp	100	46
10V5E12L	—	5 hp	100	46
10V7E12L	—	7.5 hp	100	46
10V10E12L	—	10 hp	100	46
10V15E12L	—	15 hp	120	55
10V20E12L	—	20 hp	180	82
10V25E12L	—	25 hp	180	82

When ordering winch, specify brake voltage to be the same as motor voltage. Leads must be capable of being wired separate from motor power. Price includes dynamic brake resist or to be mounted and wired by others. Contact Thern to verify drive compatibility to winch and motor. Controls shipped separately to be mounted and wired by others.

Single-Speed Electric Motor Controls

Single-Speed, Reversing-Magnetic Controls for 1- and 3-phase motors up to 60 hp

- **UL, IEC, or CSA Recognized** components throughout.
- **Steel Enclosure is NEMA 4** rated (watertight) to keep the dirt and water out. Approved for most outdoor applications.
- **Pendant Control Switch is NEMA 4X** rated (watertight) on a 50-foot cord, which allows the operator to stand away from the winch during operation. Pendant control is operated with momentary contact-type push buttons. Cord lengths of less than 50 feet are available. Please specify when ordering.
- **Reversing Contactor** is electrically and mechanically interlocked to deliver smooth reversing control.
- **Thermal Overload Relay** trips power OFF to protect motor from overheating. Switch is manually reset.
- **Fused Control Circuit** powers pendant with 115-volt, 2-amp current to help protect against high-voltage shocks.
- **Wiring Diagram** is supplied inside enclosure.
- **Steel Mounting Bracket** secures control box to winch.
- **Explosion Proof Controls** also available. Please contact Thern for more information.
- **Two-Year Limited Warranty**

OPTIONS

- Special Current or Horsepower Ratings
- Special-Rated Enclosures for Explosive or Harsh Environments
- Multi-Speed Controls
- Torque-Limiting Controls
- Power Cord Disconnects
- UL-Listed Controls
- Various Selector Switches and Pilot Lights

Single-Speed Electric Motor Controls—Horsepower Ratings

Model Number	Maximum-Rated Motor Horsepower for Power Supply Current					Approx. Ship Weight	
	115 / 1 / 60	230 / 1 / 60	208 / 3 / 60	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10S2A4	to 1.5 hp	—	—	—	—	25	12
10S3B4	—	to 3 hp	—	—	—	25	12
10S3C4	—	—	to 3 hp	—	—	25	12
10S7C4	—	—	to 7.5 hp	—	—	25	12
10S10C4	—	—	to 10 hp	—	—	28	13
10S20C4	—	—	to 20 hp	—	—	28	13
10S3D4	—	—	—	to 3 hp	—	25	12
10S7D4	—	—	—	to 7.5 hp	—	25	12
10S10D4	—	—	—	to 10 hp	—	28	13
10S20D4	—	—	—	to 20 hp	—	28	13
10S30D4	—	—	—	to 30 hp	—	60	28
10S7E4	—	—	—	—	to 7.5 hp	25	12
10S15E4	—	—	—	—	to 15 hp	25	12
10S20E4	—	—	—	—	to 20 hp	28	13
10S40E4	—	—	—	—	to 40 hp	60	28
10S60E4	—	—	—	—	to 60 hp	60	28

Controls include NEMA 4 enclosure and NEMA 4X push button pendant control on 50-foot cord.
Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

Wireless Single-Speed Electric Motor Controls

Single-Speed, Reversing-Magnetic Controls for 1- and 3-phase motors up to 60 hp

WHEN ORDERING, PLEASE INCLUDE THE FOLLOWING:
- Voltage and phase required
- Motor horsepower

In addition to the following, the wireless single-speed electric motor control has all the same features as the standard version, except for pendant-related features.

- Removes the limitations of a corded pendant's operating position.
- Rechargeable Wireless Transmitter
- A wireless transmitter is easily cloned, if lost.
- The winch can still be operated using the push buttons on the controller's receiver if the wireless transmitter is lost.
- The transmitter circuit board is epoxy-potted making it watertight and vibration-resistant·
- Removes the limitations of a corded pendant's operating position.
- UL, IEC, or CSA Recognized components throughout.
- Steel Enclosure is NEMA 4 rated (watertight) to keep the dirt and water out. Approved for most outdoor applications.
- Reversing Contactor is electrically and mechanically interlocked to deliver smooth reversing control.
- Thermal Overload Relay trips power OFF to protect motor from overheating. Switch is manually reset.
- Wiring Diagram is supplied inside enclosure.
- Steel Mounting Bracket secures control box to winch.
- Two-Year Limited Warranty

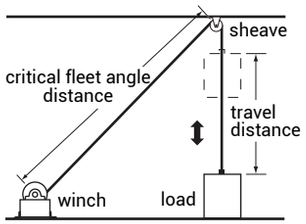
OPTIONS
- Special Current or Horsepower Ratings
- Special-Rated Enclosures
- Torque-Limiting Controls
- Power Cord Disconnects
- UL-Listed Controls
- Various Selector Switches and Pilot Lights

Single-Speed Electric Motor Controls—Horsepower Ratings

Model Number	Maximum-Rated Motor Horsepower for Power Supply Current					Approx. Ship Weight	
	115 / 1 / 60	230 / 1 / 60	208 / 3 / 60	230 / 3 / 60	460 / 3 / 60	(lb)	(kg)
10S2A4W	to 1.5 hp	—	—	—	—	25	12
10S3B4W	—	to 3 hp	—	—	—	25	12
10S3C4W	—	—	to 3 hp	—	—	25	12
10S7C4W	—	—	to 7.5 hp	—	—	25	12
10S10C4W	—	—	to 10 hp	—	—	28	13
10S20C4W	—	—	to 20 hp	—	—	28	13
10S3D4W	—	—	—	to 3 hp	—	25	12
10S7D4W	—	—	—	to 7.5 hp	—	25	12
10S10D4W	—	—	—	to 10 hp	—	28	13
10S20D4W	—	—	—	to 20 hp	—	28	13
10S30D4W	—	—	—	to 30 hp	—	60	28
10S7E4W	—	—	—	—	to 7.5 hp	25	12
10S15E4W	—	—	—	—	to 15 hp	25	12
10S20E4W	—	—	—	—	to 20 hp	28	13
10S40E4W	—	—	—	—	to 40 hp	60	28
10S60E4W	—	—	—	—	to 60 hp	60	28

Please contact Thern or nearest Thern Distributor for firm, fixed price and delivery.

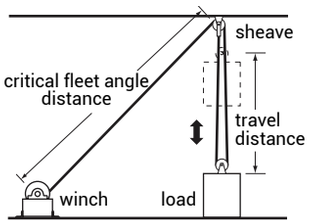
Typical Rigging Layouts for Lifting and Hoisting Applications



Floor Mounted

Lifting with Overhead Sheave

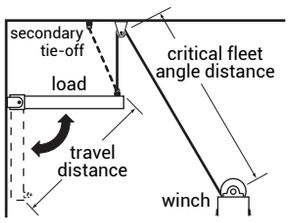
- Wire rope passes through overhead sheave to load.
- Brake motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Floor Mounted

Lifting with Two-Part Line

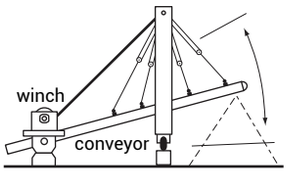
- Two-part line decreases load capacity at the winch.
- Brake motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Floor Mounted

Lifting Hinged Load

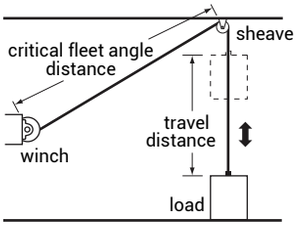
- Wire rope passes through overhead sheave to load.
- Brake motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Base Mounted

Positioning Radial Stacker

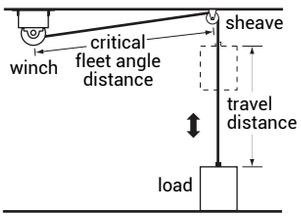
- Multi-part rigging decreases load capacity at the winch.
- Brake motor provides load control for lifting.
- Winch is easily accessible for maintenance and operation.



Wall Mounted

Lifting with Overhead Sheave

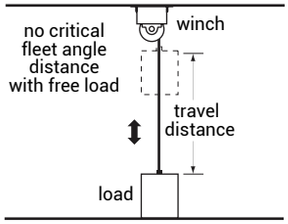
- Wire rope passes through overhead sheave to load.
- Brake motor provides load control for lifting.
- Winch is easily modified for wall mounting.



Ceiling Mounted

Lifting with Overhead Sheave

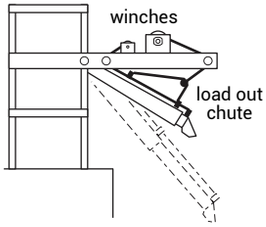
- Wire rope passes through overhead sheave to load.
- Brake motor provides load control for lifting.
- Winch is easily modified for ceiling mounting.



Ceiling Mounted

Lifting Direct to Load

- Load must be free to move side to side or be guided in track.
- Brake motor provides load control for lifting.
- Winch is easily modified for ceiling mounting.

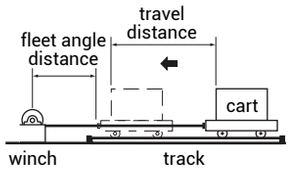


Base Mounted

Positioning Load-Out Chute

- Two winches operate separately to accurately position chute arm.
- Brake motor provides load control for lifting.
- Secondary tie-off secures load when stationary.

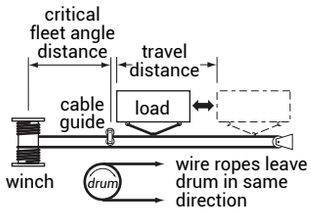
Typical Rigging Layouts for Pulling Applications



Floor Mounted

Pulling Cart on Wheels

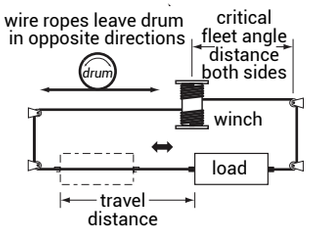
- Cart is pulled in one direction toward winch.
- Manual clutch allows drum to be disengaged for rapid load hookup.
- Cart is guided by tracks or rails to maintain fleet angle.



Mounted In-Line

Single Drum Closed Loop

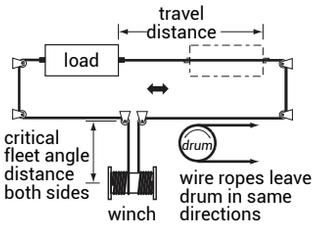
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheave maintains tension in wire rope.



Mounted Off-Side

Single Drum Closed Loop

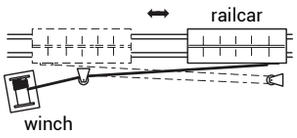
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheave maintains tension in wire rope.



Mounted Off-Side

Single Drum Closed Loop

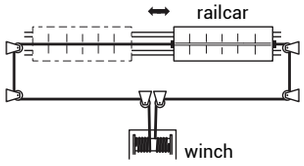
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheave maintains tension in wire rope.



Mounted In-Line

Single Line Pulling Rail Cars

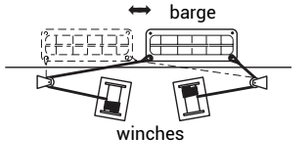
- Rail cars are pulled toward winch, or rope is passed around sheave to reverse direction.
- Manual clutch allows drum to be disengaged for rapid load hookup.



Mounted Off-Side

Closed Loop Pulling Rail Cars

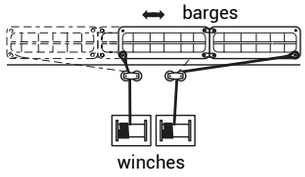
- Cars can be moved in both directions.
- Both ends of the wire rope are anchored to the same drum.
- Spring sheaves maintain tension in wire rope.



Mounted Off-Side

Dual Winch Barge Positioning

- Controls operate each winch individually or both of them together.
- Brake motors maintain tension in line to limit drift and deliver quick and accurate positioning.



Mounted Off-Side

Dual WinchBarge Positioning

- Controls operate each winch individually or both of them together.
- Brake motors maintain tension in line to limit drift and deliver quick and accurate positioning.

Rail Car Pulling Calculations

Calculating Line Pull

Line pull must be calculated by accounting for track curvature, track slope, and ambient temperature. Line pull may be roughly estimated from the tables and diagrams on this page, assuming the track is smooth, clean, and in good condition, and rail car wheels are well lubricated.

We recommend that you have your rail car pulling application carefully reviewed by the factory or a qualified sales person before selecting a winch.

Line Pull Factor Based on Temperature (lb/ton)

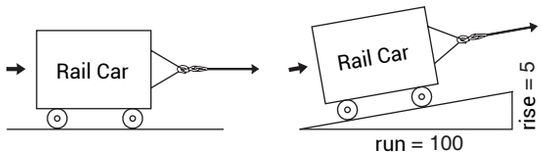
ambient temp. below 32° F	ambient temp. above 32° F
21 lb/ton	18 lb/ton

Line pull shown is for each 2,000 lb of total gross load weight.

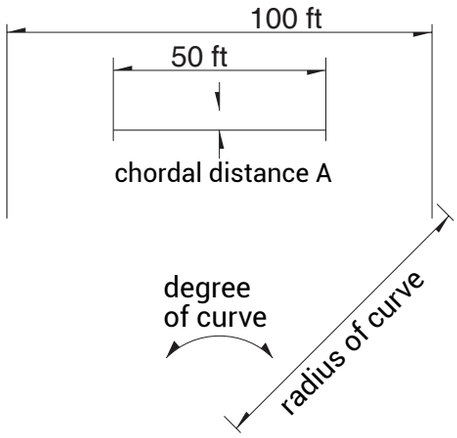
Line Pull Factor Based on Curvature and Grade (lb/ton)

Track Curvature			Track Grade %					
radius of curve	degree of curve	chordal distance A	lb/ton factor					
			0%	1%	2%	3%	4%	5%
0 ft	0°	0 in	0	20	40	60	80	100
1,146 ft	5°	3-1/2 in	5	25	45	65	85	105
573 ft	10°	6-1//2 in	10	30	50	70	90	110
388 ft	15°	9-3/4 in	15	35	55	75	95	115
288 ft	20°	13 in	20	40	60	80	100	120
231 ft	25°	16-1/2 in	25	45	65	85	105	125
193 ft	30°	20 in	30	50	70	90	110	130
166 ft	35°	23-1/5 in	35	55	75	95	115	135
146 ft	40°	27 in	40	60	80	100	120	140

Line pull shown is for each 2,000 lb of total gross load weight.



The amount of line pull due to slope is dependent on the percent of slope, calculated as follows:
slope as percent = (rise ÷ run) x 100
example: (5 ÷ 100) x 100 = 5% Grade



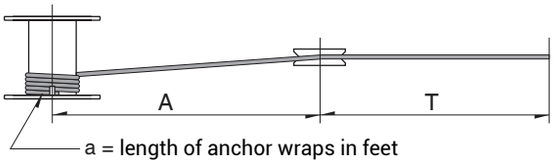
Curved sections of track place side forces on the load which must be overcome by the winch. The amount of line pull due to track curvature is dependent on the sharpness of the curve.

Example:
Two loaded rail cars weighing 120 gross tons each are pulled 800 ft on a track with a curvature of 5° and a slope of 2%.
The track is in good, clean condition, wheels are well lubricated, and the ambient temperature is frequently below 32° fahrenheit.
From Table 1:
line pull required based on temperature effect = 21 lb/ton (factor 1)
From Table 2:
line pull required based on curvature and slope = 45 lb/ton (factor 2)
Total Line Pull Calculation (Running Pull):
(gross weight per car) x (number of cars) x (factor 1 + factor 2) = total line pull
(120 tons) x 2 x (21 lb/ton + 45 lb/ton) = (240 ton) x (66 lb/ton) = 15,840 lb (line pull)
800 ft of travel puts us at mid drum: 4HS16M mid drum running line pull = 11,000 lb
This application would require a 4HS26M (mid drum running line pull = 19,000 lb)

Engineering Information

Anchor Wraps

The first three to four wraps of wire rope must remain on the drum at all times to act as anchor wraps and to help secure the wire rope to the drum. The length of wire rope used for anchor wraps must be added to the total travel distance to determine the length of the wire rope needed for the application.



a = length of anchor wraps in feet
a = ((D + d) x π x N) ÷ 12
D = diameter of drum in inches
d = diameter of wire rope in inches
π = 3.14
N = number of anchor wraps (3 to 4) or if entire first layer N = ((drum width) ÷ d

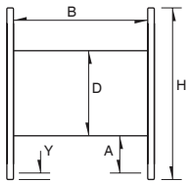
L = Total Length of Wire Rope = T + A + a
T = maximum distance load will travel
A = distance between drum and lead sheave to maintain fleet angl
a = length of anchor wraps in feet

INFORMATION
ENGINEERING

Engineering Information Continued...

Drum Capacity

Full drum capacity is typically calculated using the formula shown. This formula is based on the practices of wire rope manufacturers and assumes uniform winding of the wire rope. In actual practice, drum capacities may be 25–30% less than the values given by this formula due to uneven spacing, loose winding, and overlapping. Drum capacity often determines the winch you select. Most power winches can be equipped with different sizes of wire rope. Larger diameter wire ropes will decrease drum capacity, while smaller diameter wire ropes will increase drum capacity.



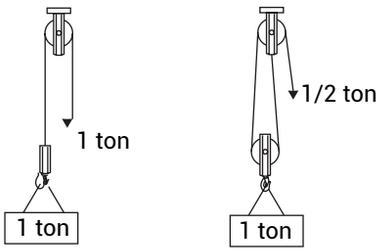
drum capacity in feet = (A + D) x A x B x K
K = factor from the table
A = (H – D – 2y) ÷ 2
Y = clear distance between edge of flange and wire rope (usually 1/2")

Wire Rope Dia. (in)	1/8	3/16	7/32	1/4	5/16	3/8	7/16	1/2
K Factor	13.6	6.14	4.59	3.29	2.21	1.58	1.19	.925

Wire Rope Dia. (in)	9/16	5/8	3/4	7/8	1	1-1/8	1-1/4	1-3/8
K Factor	.741	.607	.428	.308	.239	.191	.152	.127

Two-Part Line

In some applications, a two–part line can be used to effectively increase the size of load the winch can move. A two–part line reduces tension in the wire rope, it does not change the weight of the load. All equipment supporting the load, such as sheave blocks, must be rated for the full size of the load.



As the number of rigging lines increase, line pull and line speed decrease. Friction in the system also affects performance. As the number of rigging lines increase, friction also increases. Contact a reputable sheave supplier for more information.

Formulas

$$H = \frac{P \times fpm}{33{,}000 \times E}$$

$$P = \frac{HP \times 33{,}000 \times E}{fpm}$$

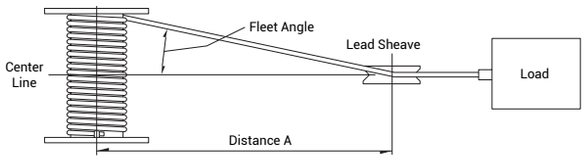
$$fpm = 0.262 \times rpm \times D$$

$$rpm = \frac{3.82 \times fpm}{D}$$

hp = horsepower
P = line pull
E = efficiency of gears
fpm = line speed in feet per minute
rpm = drum speed in revolutions per minute
D = diameter of drum in inches at point of line entrance

Fleet Angle

Fleet angle is the angle between the wire rope and an imaginary line extending perpendicular to the drum. The fleet angle varies with the distance between the lead sheave and the drum. The proper fleet angle helps the wire rope to wind evenly onto the drum and helps to reduce wear to the wire rope, drum, and lead sheave. Too large a fleet angle will cause the wire rope to wind loosely, overlap, and possibly jump the flange and cause severe damage to the equipment. A maximum fleet angle of 1-1/2° for smooth drums and 2° for grooved drums helps the wire rope wind uniformly.



Distance A in ft : for 1.5° fleet angle = (drum width in inches) x 1.59

Distance A in ft : for 2° fleet angle = (drum width in inches) x 1.19

Recommended Max. Fleet Angle

smooth drum 1.5° grooved drum 2°

APPLICATION DATA SHEET
FOR POWER WINCHES

Contact:

Address:

City: State: Zip Code:

Phone: Mobile:

Email:

1a **TIME FRAME:** **Today's Date:** **Date Needed:**

Special Considerations:

1b **PULLING** ☐ **LIFTING** ☐ **Dollar Value of Load (Approx.):**

Job Description:

If the product will be used in more than one application, please fill out separate data sheets for each application.

2a **LINE PULL REQUIREMENTS—Vertical Lift Only:** **Line Pull:**

Special Considerations:

2b **LINE PULL REQUIREMENTS—Horizontal Pull Only:** **Line Pull:**

Gross Weight of Load: Measured Line Pull: Load Moves Both Directions? ☐ Yes ☐ No

Will Weight be Added/Subtracted During Operation? ☐ Yes ☐ No How Much:

Surface Under Load: Condition:

Slope? ☐ Yes ☐ No Rise: Run: Or Degrees: Or Percent (%):

Wheels ☐ Yes ☐ No Lubrication: Material: Size (Dia.):

Track? ☐ Yes ☐ No Curvature (Degrees, Chordal Line, or Other):

Special Considerations:

3 **LINE SPEED REQUIREMENTS:** **Minimum Line Speed:**

☐ Constant Minimum: Maximum: ☐ FPM ☐ Cycles Per Minute

☐ Variable Speed† From: To: ☐ FPM ☐ Cycles Per Minute

☐ Stringent ☐ Variations Acceptable:

Special Considerations:

† This is a complex option, please contact the factory.

4 **DISTANCE OF TRAVEL:** ☐ **Single Layer** ☐ **Full Drum**

Wire Rope Diameter: Extra Rope Stored on Drum:

Wire Rope Specifications:

Special Considerations:

APPLICATION DATA SHEET
FOR POWER WINCHES

5 POWER REQUIREMENTS:

☐ Electrical ☐ AC ☐ DC Voltage: Phase: Cycle:

☐ Hydraulic Pressure: Flow: Line Size (Dia.):

☐ Pneumatic (Air) Pressure: Flow: Line Size (Dia.):

☐ Other:

6 INSTALLATION REQUIREMENTS:

☐ Max. Length: ☐ Max. Width: ☐ Max. Height: ☐ Max. Weight:

Installation: ☐ Base ☐ Wall ☐ Ceiling Clearance Required:

7 ENVIRONMENT:

☐ Indoor ☐ Outdoor ☐ Marine ☐ Corrosive ☐ Hazardous Temp. Range: ☐ °F ☐ ° C

Describe Special Conditions (Dust, Chemicals, Explosives, Etc.):

8 FREQUENCY OF OPERATION:

Hours per Day: Start/Stops per Hour: Will There Be ☐ Overloads ☐ Shock Loads

9a ACCESSORY OPTIONS:

☐ Brake ☐ Limit Switch ☐ Clutch ☐ Pressure Bar ☐ Slack Line Detect

☐ Controls ☐ Torque Limiter ☐ Manual Override ☐ Other:

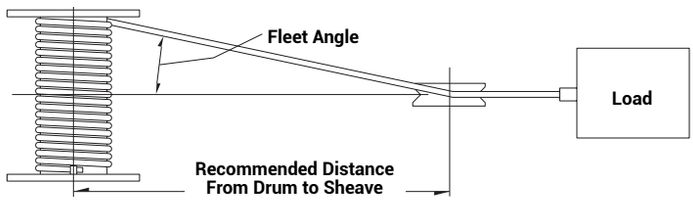
9b MODIFICATIONS:

☐ Grooved Drum ☐ Multiple Drum ☐ Modified Drum Size ☐ Level Wind ☐ Special Finish

Other:

10 SKETCH OF APPLICATION:

1. Sketch diagram showing mounting position, rigging layout, and position of load.
2. Indicate whether the wire rope will be overwound ( ) or underwound ( ).
3. Indicate the distance between the center of the drum and the lead sheave. (maximum fleet angle: 1-1/2° for smooth drum, 2° for grooved drum)



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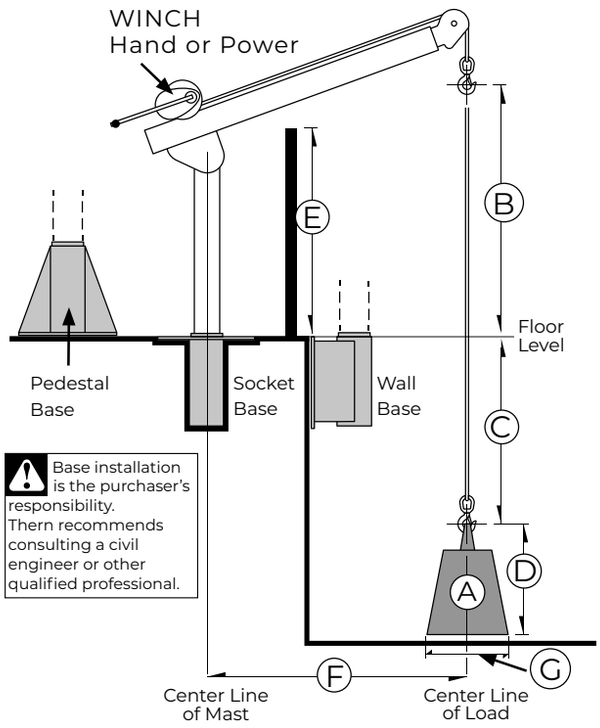

1 JOB DESCRIPTION: _____

_____

2 LINE PULL

Gross Weight of Load Ⓐ _____

3 LIFT REQUIREMENTS

Hook Height Ⓑ _____
Below Floor Level Ⓒ _____
Load Height Ⓓ _____
Obstacle Height Ⓔ _____
Max Lift Req. TOTAL _____

4 REACH REQUIREMENTS

Hook Reach Ⓕ _____
Load Width Ⓖ _____
Min. Hook Reach _____
Max. Hook Reach _____
Clearance Required _____
Rotation: _____

⚠ Base installation is the purchaser's responsibility. Thern recommends consulting a civil engineer or other qualified professional.

5 WINCH REQUIREMENTS (Additional Cost *)

☐ HAND ..... FINISH▶ ☐ Zinc (Standard) ☐ Stainless Steel*
☐ POWER .....FINISH▶ ☐ Red Painted (Standard) ☐ Epoxy*
☐ 115 Volt AC ☐ 12 Volt DC ☐ Hydraulic ☐ Pneumatic
☐ Drill Driven Other: _____

6 BASE REQUIREMENTS (Bases Sold Separately)

☐ Pedestal Base ☐ Socket/Flush Base ☐ Wall Base
☐ Wheel Base Mounting Surface_____

7 ENVIRONMENT

☐ Indoor ☐ Outdoor ☐ Marine
☐ Corrosive ☐ Hazardous ☐ Explosive
Temperature Range_____

8 FREQUENCY OF OPERATION

Hours per Day: _____
Overloads or Shock Loads? _____

9 CRANE FINISH (Additional Cost*)

☐ Red Powder Coat (Standard) ☐ Galvanized*
☐ 304 Stainless SS* ☐ 316 Stainless SS* ☐ Epoxy*

10 BASE FINISH (Additional Cost*)

☐ Red Powder Coat (Standard) ☐ Galvanized*
☐ 304 Stainless SS* ☐ 316 Stainles s SS* ☐ Epoxy*

11 ACCESSORIES

☐ Roller Bearing ☐ Wire Rope Keeper
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☐ Drill Drive Kit ☐ Custom Electric Controls
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